

SERVICE MANUAL



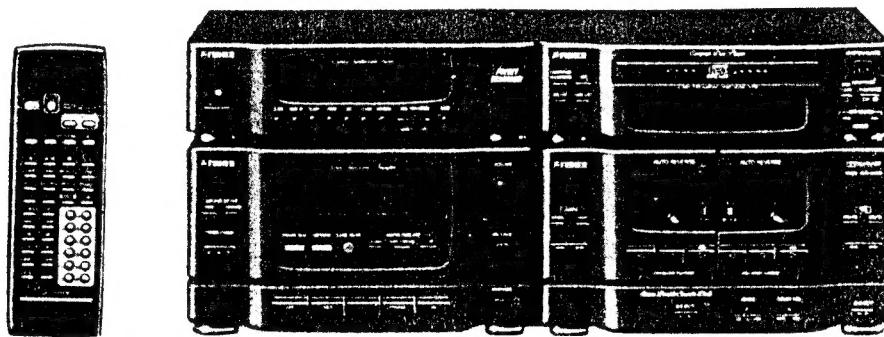
FISHER

TAD-G5

(GERMANY) (SPAIN)

CD Mini Component System Sanyo DCT44A, DCT55DK

This Service manual is consist of "REM-M44", "FM-G5",
"AD-G5", "CR-WG5", "CA-G5".



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REFERENCE No. WM-580633

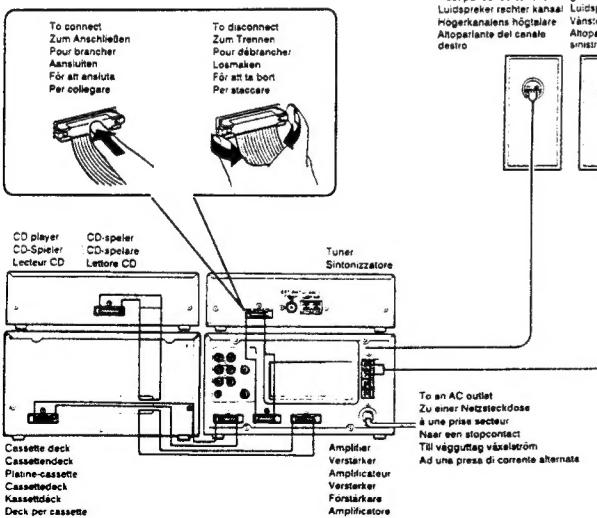
SPECIFICATION

Tuner (FM-G5)	
Frequency range	FM : 87.5 - 108 MHz
.....	MW : 522 - 1,611 kHz
.....	LW : 144 - 290 kHz
Sensitivity	FM : 1.8 μ V (mono)
Dimensions(approx.)	220 (W) x 65 (H) x 250 (D) mm
Weight(approx.)	1.4 kg
Amplifier (CA-G5)	
Output power	25 W x 2 (0.9% THD)
Inputs/outputs	Audio input x 2 Audio output x 1 Video input x 1 Video output x 1 7 band electronic
Graphic equalizer	7 band
Spectrum analyzer	7 band
Dimensions(approx.)	220 (W) x 120 (H) x 250 (D) mm
Weight(approx.)	4.65 kg
Cassette decks (CR-WGS)	
Track system	4-track, 2-channel stereo
Frequency response	Metal tapes : 40 - 15,000 Hz Chrome tapes : 40 - 14,000 Hz Normal tapes : 40 - 13,000 Hz
Signal to noise ratio	60 dB (with DOLBY NR : ON)

Wow and flutter	0.12% (WRMS)
Fast forward / rewind time	Approx. 110 sec (C-60)
Dimensions(approx.)	220 (W) x 120 (H) x 250 (D) mm
Weight(approx.)	2.5 kg
CD player (AD-G5)	
Channels	2-channel stereo
Sampling frequency	44.1 kHz
Pick-up	Optical 3-beam semiconductor laser
Frequency response	5 - 20,000 Hz
Wow and flutter	Below measurable limits
Dimensions(approx.)	220 (W) x 65 (H) x 250 (D) mm
Weight(approx.)	1.75 kg
General	
Power requirements	AC : 230V(115V), 50Hz
Power consumption	115W
Remote Controller (REM-M44)	
Power requirements	DC : 3V "R6/AA/SUM-3" Battery x 2
Dimensions(approx.)	58 (W) x 18 (D) x 186 (H) mm

Specification subject to change without notice.

SYSTEM CONNECTION



PARTS LIST

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol Δ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with Δ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.

Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

CAUTION : Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.

NOTE : This model has two difference colors. (B) : Black • (W) : White

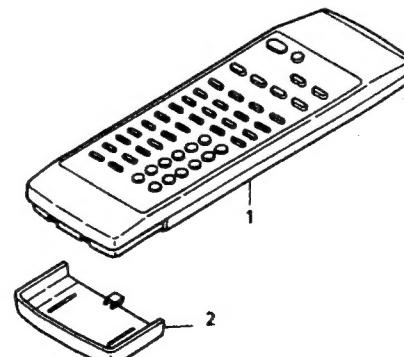
PACKING & ACCESSORIES

REF.NO.	PART NO.	DESCRIPTION
614 237 1459	INNER CARTON(SPAIN)	
614 236 2945	INNER CARTON(B)	
614 236 2958	INNER CARTON(W)	
614 228 8825	PAD.TOP	
614 228 8832	PAD.BOTTOM	
614 223 3917	POLY COVER.REMOCON	
614 230 1135	POLY COVER.TUNER	
614 229 4000	INNER POLYE LAMINA COVER.CO	
614 176 8786	INNER POLYE LAMINA COVER.DECK	
614 176 8793	INNER POLYE LAMINA COVER.AMP	
614 176 3255	INNER POLYE COVER.INST-ACCESORY	
614 176 1039	INNER POLYE COVER.SCREW	
614 236 2976	INSTRUCTION MANUAL(GERMANY)	

REF.NO.	PART NO.	DESCRIPTION
614 237 1466	INSTRUCTION MANUAL(SPAIN)	
614 251 6832	LABEL.SAFETY,LASER,CD	
614 229 6929	SHEET.CD TRAY	
614 226 7387	ASSY.CONNECTOR-P,15P BLACK,AMP.-DECK	
614 227 2640	ASSY.CONNECTOR-P,13P BLACK,AMP.-TUNER	
614 227 2633	ASSY.CONNECTOR-P,15P BLUE,AMP.-CD	
614 208 7565	LOOP ANT.AM	
614 212 2341	MOUNT-E.AM ANT	
614 023 7344	ANT.FM	
411 083 9307	SCR WOOD RND 3.1X13,AM ANT	

REMOTE CONTROLLER UNIT (REM-M44)

EXPLODED VIEW & PARTS LIST



REMOCN (REM-M44)

REF.NO.	PART NO.	DESCRIPTION
1	614 235 8443	ASSY.REMOTE CONTROLLER
1	614 235 8368	ASSY.REMOCON - Co. Circuit
2	614 223 3764	LID.BATTERY

TUNER UNIT (FM-G5)

TUNER ADJUSTMENT

- Use a plastic screwdriver for adjustment.
- Adjust the intermediate frequency of AM and FM to the frequency of ceramic filter.

1. CLOCK

STEP	ITEMS	OUTPUT CONDITION		PARTS	STANDARDS
		MEASURE	OUTPUT		
1	CLOCK	Frequency Counter	IC242 Pin 33(H) Earth(E)	CT241	1.048576MHz (20°C)

① Short the IC242 pin 40 and D2048 anode at power off. Temperature drift
 ② Output the clock signal for adjustment. 10°C : about +1.5Hz, 30°C : about -2.5Hz, 40°C : about -5Hz.
 ③ Clock signal for adjustment delete at power on.

2. FM BAND

Antenna : 75 ohm Direct, Modulation : 1kHz, Dev. : $\pm 75\text{kHz}$ (mono / stereo) - $\pm 67.5\text{kHz}$ (main) - $\pm 6.75\text{kHz}$ (pilot)

STEP	ITEMS	TUNING FREQUENCY	INPUT CONDITION		OUTPUT CONDITION		PARTS	STANDARDS
			MEASURE	INPUT	MEASURE	OUTPUT		
1	COVER	108.0MHz	-----	-----	Digital Voltmeter	TP241(H) TP232(E)	-----	Confirm $\leq 8.0V$
2	IF(OV)	98.0MHz (66dB)	FM SG	ANT TERMINAL	Digital Voltmeter	TP221(H) TP222(E)	T2202	$0 \pm 0.05V$
3	VCO	98.0MHz (66dB)	FM SG	ANT TERMINAL	Frequency Counter	TP231(H) TP232(E)	SVR23	$19\text{KHz} \pm 50\text{Hz}$
4	SEPARATION	98.0MHz (66dB)	FM SG	ANT TERMINAL	VTVM Oscilloscope	TP233(L) TP234(R) TP235(E)	SVR24	L-R - R-L : Minimum DEV(MAIN) = $\pm 40\text{kHz}$
5	SD (Auto Stop)	98.0MHz (26dB)	FM SG	ANT TERMINAL	Digital Voltmeter	TP223(H) TP232(E)	SVR21	1~3V

* : TP222 is no earth point. ** : Adjust in the modulation off after the stereo indicator light on.

3. MW BAND

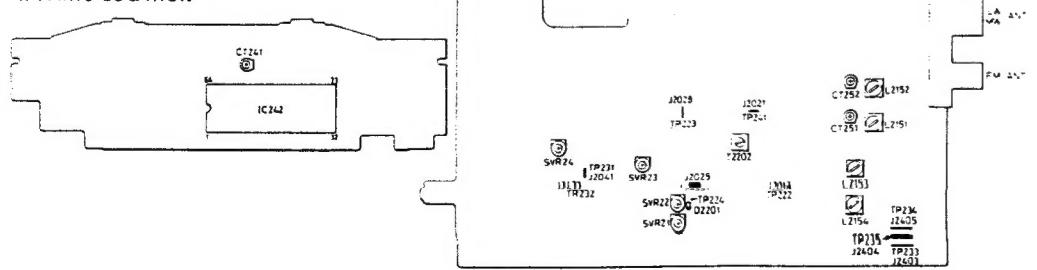
Antenna: IRE Loop, Modulation: 400Hz 30%								
STEP	ITEMS	TUNING FREQUENCY	INPUT CONDITION		OUTPUT CONDITION		PARTS	STANDARDS
			MEASURE	INPUT	MEASURE	OUTPUT		
1	COVER	522kHz 1611kHz	-----	-----	Digital Voltmeter	TP241(H) TP232(E)	L2153 -----	$1.2 \pm 0.05V$ Confirm $\leq 8.0V$ (about 7.6V)
2	TRACKING	603kHz 1404kHz	AM SG	LOOP ANT	VTVM Oscilloscope	TP233(L) TP234(R) TP235(E)	L2151 CT251	Output : Maximum Adjust to near the effective sensitivity
3	SD (Auto Stop)	999kHz (8568)	AM SG	LOOP ANT	Digital Voltmeter	TP223(H) TP232(E)	SVR22	1~3V

4. LW BAND

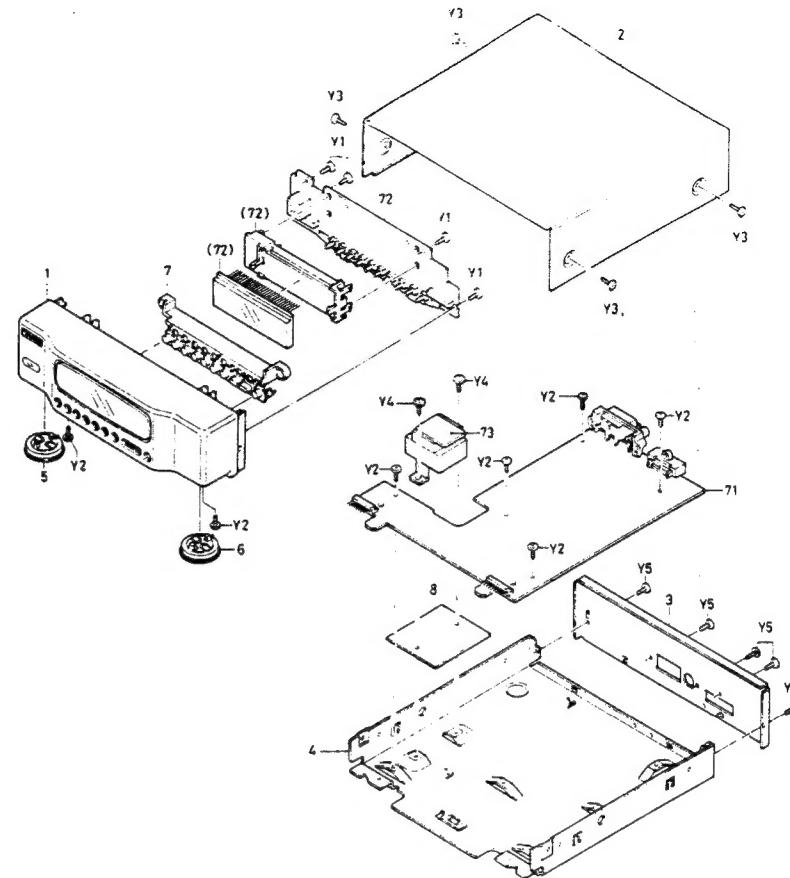
Antenna : IRE Loop, Modulation : 400Hz 30%

STEP	ITEMS	TUNING FREQUENCY	INPUT CONDITION		OUTPUT CONDITION		PARTS	STANDARDS
			MEASURE	INPUT	MEASURE	OUTPUT		
1	COVER	144kHz 290kHz	-----	-----	Digital Voltmeter	TP241(H) TP232(E)	L2154 -----	1.6±0.05V Confirm ≤ 8.0V (about 7.2V)
2	TRACKING	162kHz 279kHz	AM SG	LOOP ANT	VTVM Oscilloscope	TP233(L) TP234(R) TP235(E)	L2152 CT252	Output : Maximum Adjust to near the effective sensitivity.

4. PARTS LOCATION



EXPLODED VIEW (TUNER)



PARTS LIST (TUNER)

CABINET & CHASSIS (FM-G5)

REF.NO.	PART NO.	DESCRIPTION
1	614 236 1191	ASSY.PANEL.FRONT(B)
	614 236 1184	ASSY.PANEL.FRONT(W)
2	614 227 0974	ASSY.CABINET(B)
	614 236 1986	ASSY.CABINET(W)
3	614 236 2174	PANEL.REAR
4	614 227 5658	ASSY.CABINET.BOTTOM
5	614 234 7218	ASSY.FOOT.FRONT-L
6	614 234 7225	ASSY.FOOT.FRONT-R
7	614 236 2228	BUTTON.OPERATION(W)
	614 227 1650	BUTTON.OPERATION(B)
8	614 229 0859	SHIELD.TRANS

FIXING PARTS (FM-G5)

REF. NO.	PART NO.	DESCRIPTION
Y1	411 021 3107	SCR S-TPG BIN 2,6X8
Y2	411 021 6405	SCR S-TPG BIN 3X8
Y3	411 021 6603	SCR S-TPG BIN 3X8(W)
	411 098 4205	SCR S-TPG BIN 3X8(W)
Y4	411 020 9902	SCR S-TPG BRZ-FLG 3X8
Y5	411 021 3503	SCR S-TPG BIN 3X10

PARTS LIST (TUNER)

TUNER MAIN P.C.B. BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
71	614 229 9500	ASSY,PCB,MAIN
	620 208 3087	TUNER PACK,FM
C2151	403 082 2001	POLYPRO 470P J 100V
C2154	403 082 2205	POLYPRO 540P J 100V
C2314	403 080 5000	POLYPRO 1000P J 100V
C2401	403 196 9602	DL-ELECT 0.047Z S 5.5V
C2402	403 019 0403	CERAMIC 24P J SOU NPO
C2403	403 019 0403	CERAMIC 24P J SOU NPO
C2433	403 106 1603	NP-ELECT U1 Q 50V
C2904	403 157 7300	ELECT 1000U M 25V
CF221	614 030 5128	I.F FILTER,FM
CF222	614 030 5128	I.F FILTER,FM
CF223	614 030 5128	I.F FILTER,FM
CF224	614 210 4675	FILTER,AM(CF224+CF225)
OR	614 211 2939	FILTER,AM
CF225	614 030 7443	I.F FILTER,AM
CN101	614 210 2688	TERMINAL,FM(DIM)+PUSH 2P. EXT-ANT
CN290	614 227 2961	SOCKET,13P,TO AMP UNIT
CN291	614 035 4980	SOCKET,9P,TO POWER TRANS PCB
CN292	614 225 6428	PLUG,10P,TO FRONT PCB
CN293	614 225 6442	PLUG,11P,TO FRONT PCB
CT251	614 007 6356	TRIMMER,11PF(HW),MW
CT252	614 007 6332	TRIMMER,30PF(GR),LW
D2151	407 091 5004	VARACTOR DIU SU231SPA-C-2
D2152	402 091 5004	VARACTOR DIU SU231SPA-C-2

REF. NO.	PART NO.	DESCRIPTION
72	614 229 9517	ASSY,PCB,DISP,SW
	614 227 1872	MOUNT,-FL
CN295	614 221 5162	SOCKET,10P,TO MAIN PCB
CH296	614 221 9126	SOCKET,12P,TO MAIN PCB
CT241	614 007 6552	TRIMMER,SOPF(GR),CLOCK
D2402	407 007 9904	DIODE GM401
D2403	407 007 9904	DIODE GM401
D2404	407 007 9904	DIODE GM401
D2405	407 007 9904	DIODE GM401
D2406	407 007 9904	DIODE GM401
D2407	407 007 9904	DIODE GM401
D2408	407 007 9904	DIODE GM401
D2420	407 007 9904	DIODE GM401
FL241	614 226 7561	FLUORESCENT TUBE, FOR TUNER
IC242	410 112 7406	IC,LM40472B&34S
L2401	614 028 4256	FILTER,100UH,CHOCK(ripple)
Q2451	405 003 5362	TR ZSA1317-T
RA241	614 216 0433	RESISTOR 100K X5
S2401	614 220 5655	SWITCH,TACT,CLEAR
S2402	614 220 5655	SWITCH,TACT,SLEEP
S2403	614 220 5655	SWITCH,TACT,WARE UP
S2404	614 220 5655	SWITCH,TACT,TIMER
S2405	614 220 5655	SWITCH,TACT,CLOCK
S2406	614 220 5655	SWITCH,TACT,BAND
S2407	614 220 5655	SWITCH,TACT,SET
S2408	614 220 5655	SWITCH,TACT,MEMORY
S2409	614 220 5655	SWITCH,TACT,UP
S2410	614 220 5655	SWITCH,TACT,DOWN
S2441	407 138 4700	PHOTO CONNECTOR,REMOCOM RECEIVER
X2402	614 229 3294	RESONATOR,4.19MHz

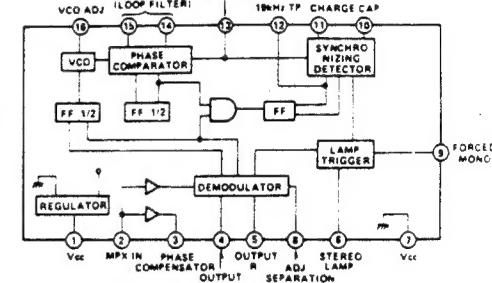
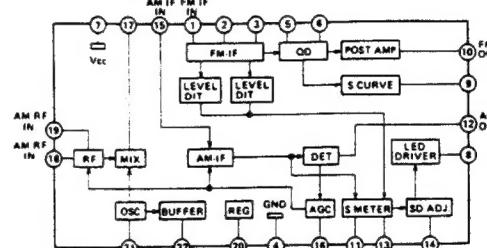
POWER TRANSFORMER P.C.B. BOARD ASSY		
REF. NO.	PART NO.	DESCRIPTION
75	614 229 9524	AC/DC-PCB-POWER TRANS
CN292	614 035 4980	300V-ET-9P-10 MAIN PCB
PT291	614 231 8762	POWER TRANSFORMER

MEMO-

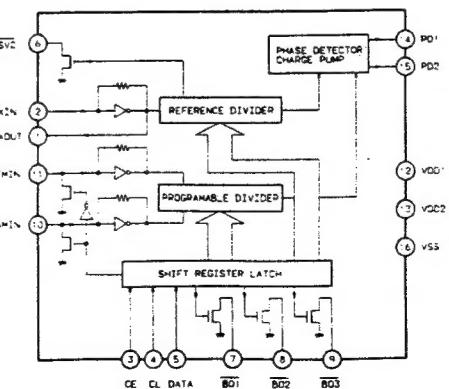
IC BLOCK DIAGRAM (TUNER)

IC221 LA1265(Tuner System)

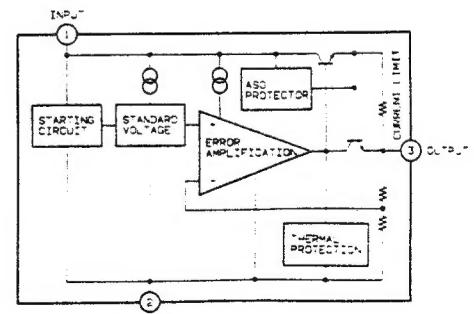
IC231 LA3361(PLL FM MPX, Stereo Demodulator)



IC241 LM7001(Pre-Scaler)



IC291 L78M12ML(3-Terminal Voltage Regulator)



IC BLOCK DIAGRAM (TUNER)

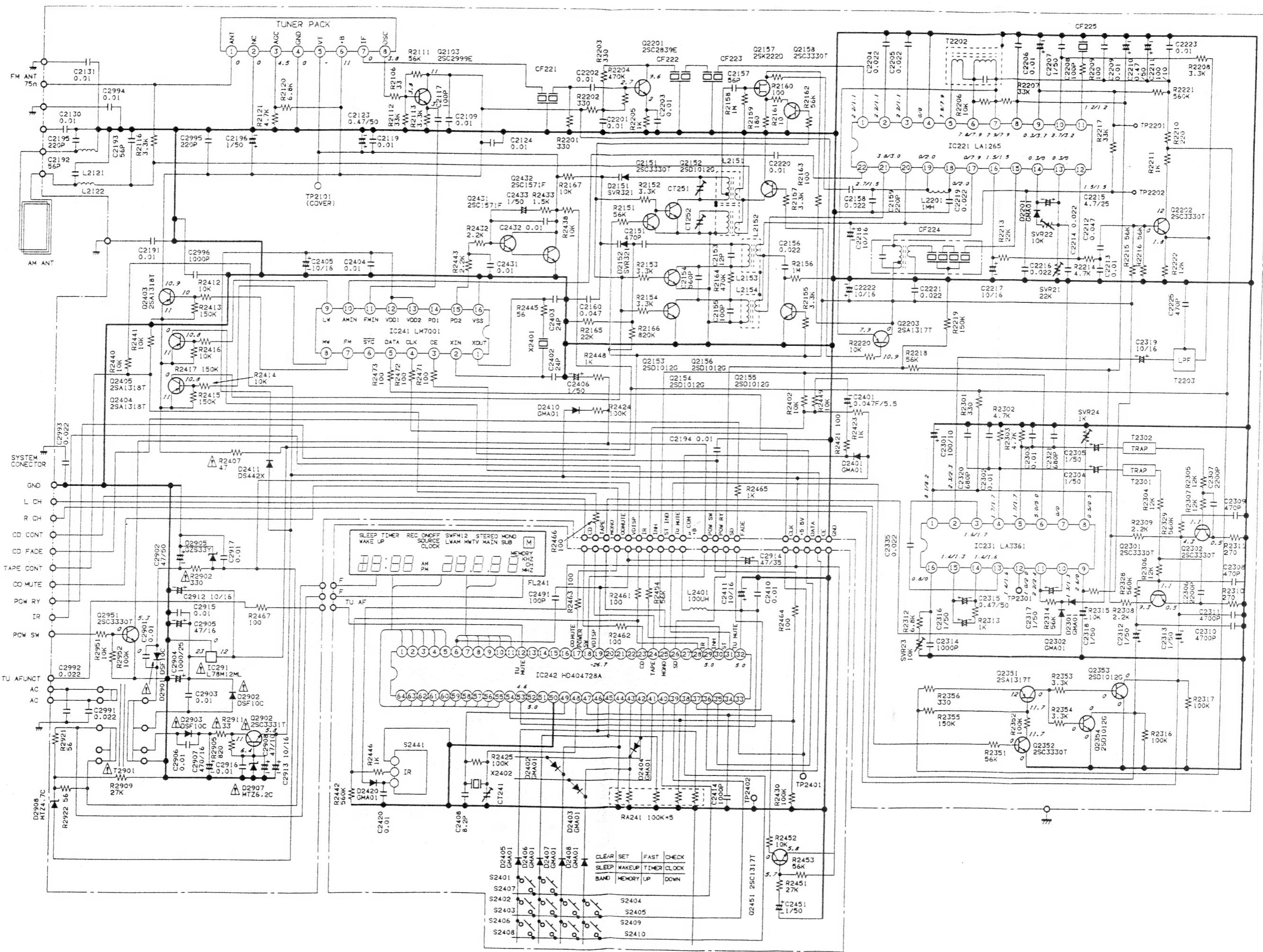
IC242 HD404728A34S (4-Bit Micro Processor)

A* :initial B* :Active Mode C* :Back Up

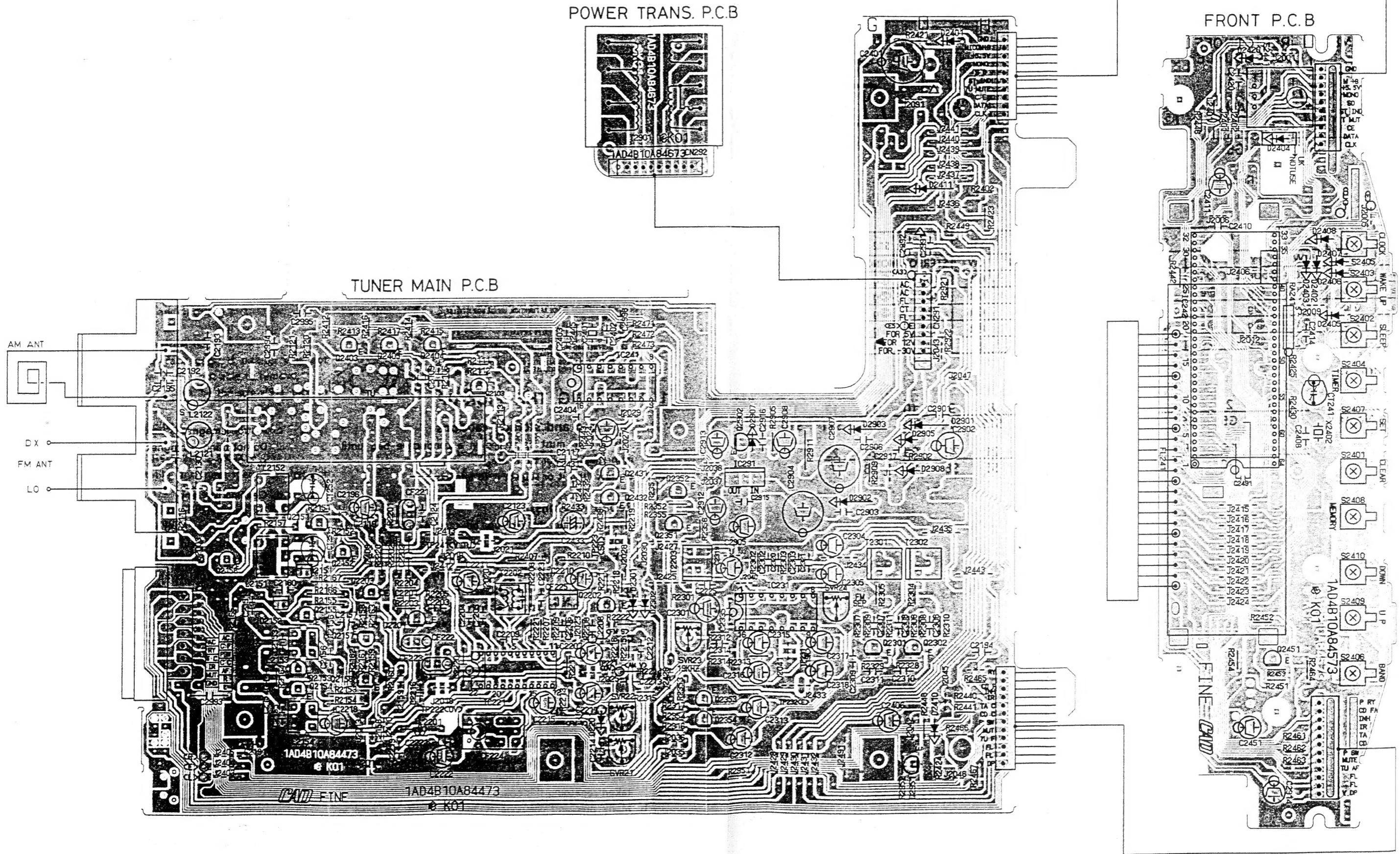
No	Pin name	Description	High : ,Low :	A*	B*	C*
1	SEG.OUT5	FL segment output (SEG.OUT5)				
2	SEG.OUT4	FL segment output (SEG.OUT4)				
3	SEG.OUT3	FL segment output (SEG.OUT3)				
4	SEG.OUT2	FL segment output (SEG.OUT2)				
5	SEG.OUT1	FL segment output (SEG.OUT1)				
6	DIGIT OUT1	FL Digit output (DIG.OUT1)				
7	DIGIT OUT2	FL Digit output (DIG.OUT2)				
8	DIGIT OUT3	FL Digit output (DIG.OUT3)				
9	DIGIT OUT4	FL Digit output (DIG.OUT4)				
10	DIGIT OUT5	FL Digit output (DIG.OUT5)				
11	DIGIT OUT6	FL Digit output (DIG.OUT6)				
12	FUNCT4	FUNCTION SW signal output TUNER; Hi PULSE		L	H	L
13	FUNCT3	FUNCTION SW signal output AUX; Hi PULSE		L	H	L
14	FUNCT2	FUNCTION SW signal output VCR; Hi PULSE		L	H	L
15	FUNCT1	FUNCTION SW signal output DAT; Hi PULSE		L	H	L
16	-20dB MUTE	-20dB Muting output, ON/OFF→L/H		L	H	L
17	∞MUTE	∞Muting output, ON/OFF→L/H		L	L	Hi-imp
18	POWER SW	POWER SW key input, Nrm.→H		L		
19	Vdisp	Power source for display				
20	VOLUP	Vol Up signal output, Norm.→L		L	H	L
21	VOLDOWN	Vol Down signal output Norm.→L		L	H	L
22	VOLIND	VOL indicator LED output, Norm.→H, VOL mode→flushing		H	H	L
23	CD CONT	CD Control output, Timer; CD start→H, Norm.→L level		L	H	L
24	TAPE CONT	TAPE Control output, Timer and TAPE PLAY→L, TAPE REC→H, Norm.→Hi Impedance		Hi-imp	L/H	Hi-imp
25	FM MONO	FM compulsion monoral output, Stereo Auto.→L, Compulsion Mono.→H		L	H	L
26	TUNED/SD	TUNED/SD signal input		L		
27				L		
28	IR	Remote controller received signal				
29	INH	Inhibit AC PW detected, AC ON→, AC OFF→L		L		
30	STEREO IND	FM STEREO received display input STEREO TIME→L level		L		

No	Pin name	Description	High : ,Low :	A*	B*	C*
31	TU MUTE	TU Muting output Muting ON/OFF→H/L		H	H	Hi-imp
32	VCC	+ Power source				
33	SCK	Clock signal output for data output to PLL IC				
34	SI					
35	SO	Data output to the PLL IC				
36	CE	Chip enable signal output to the PLL IC				
37	CD FADE CONT/OSC CHECK	CD Control output Norm: L, CD FADE IN-FADE OUT: H, PW OFF CHECK Key*1": Clock output for adjustment		L	H	L
38	KEY OUT1	Key Matrix output signal 1				
39	KEY OUT2	Key Matrix output signal 2				
40	KEY OUT3	Key Matrix output signal 3				
41	KEY OUT4	Key Matrix output signal 4				
42	KEY OUT5	Key Matrix output signal 5				
43	KEY IN1	Key Matrix input signal 1				
44	KEY IN2	Key Matrix input signal 1				
45	KEY IN3	Key Matrix input signal 1				
46	KEY IN4	Key Matrix input signal 1				
47	RESET	(RESET)				
48	OSC2	(X'tal connect)				
49	OSC1	(X'tal connect)				
50	GND	GND				
51	CL1					
52	CL2					
53	TEST					
54	POWER RY	POWER RELAY Control output Relay OFF:L Relay ON:H		L	H	Hi-imp
55	SEG.OUT15	FL segment output (SEG.OUT15)				
56	SEG.OUT14	FL segment output (SEG.OUT14)				
57	SEG.OUT13	FL segment output (SEG.OUT13)				
58	SEG.OUT12	FL segment output (SEG.OUT12)				
59	SEG.OUT11	FL segment output (SEG.OUT11)				
60	SEG.OUT10	FL segment output (SEG.OUT10)				
61	SEG.OUT9	FL segment output (SEG.OUT9)				
62	SEG.OUT8	FL segment output (SEG.OUT8)				
63	SEG.OUT7	FL segment output (SEG.OUT7)				
64	SEG.OUT6	FL segment output (SEG.OUT6)				

SCHEMATIC DIAGRAM (TUNER)-

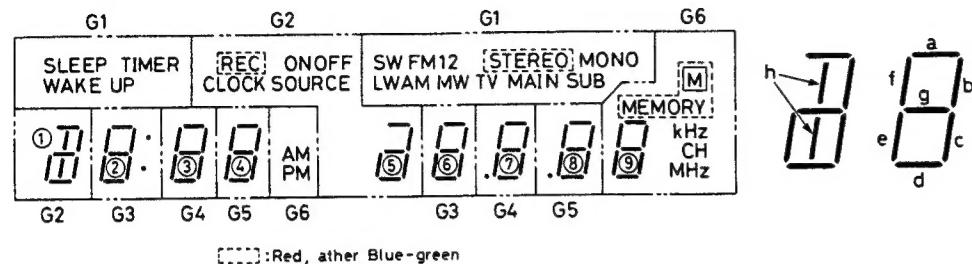


WIRING DIAGRAM (TUNER) -



IC BLOCK DIAGRAM

FL241 (Tuner Fluorescent Display)



Segment Map

	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15
G1	AM	SUB	MW	TV	SW	FM	1	2	MAIN	LW	STEREO	MONO	TIMER	SLEEP	WAKEUP
G2	OFF	ON	REC	SOURCE	CLOCK	⑤b	⑤a	⑤c	①a	①b	①h	①g	①e	①c	①d
G3	⑥a	⑥b	⑥f	⑥g	⑥e	⑥c	⑥d	:	②a	②b	②f	②g	②e	②c	②d
G4	⑦a	⑦b	⑦f	⑦g	⑦e	⑦c	⑦d	-	③a	③b	③f	③g	③e	③c	③d
G5	⑧a	⑧b	⑧f	⑧g	⑧e	⑧c	⑧d	-	④a	④b	④f	④g	④e	④c	④d
G6	⑨a	⑨b	⑨f	⑨g	⑨e	⑨c	⑨d	MEMORY		⑩	AM	PM	kHz	CH	MHz

Pin Assignment

PIN No.	1	2	3	4	5	6	7	8	9	10	11	12	13
Segment Name	F	G6	G5	G4	G3	G2	G1	S15	S14	S13	S12	S11	S10
	14	15	16	17	18	19	20	21	22	23	24	25	
	S9	NC	NC	S1	S2	S3	S4	S5	S6	S7	S8	F	

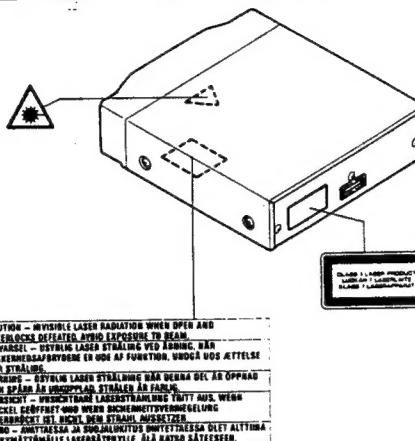
----- CD PLAYER UNIT (AD-G5)

LASER BEAM SAFETY PRECAUTIONS

Do not look directly at the laser beam coming from the pick-up or allow it to strike against your fingers, skin, etc.
Do not apply power if there is a broken part in the laser output section of the pick-up.

Structural Safety Interlock
This model has a disc chuck lever and top lid. This disc chuck lever and top lid prevent to expose the laser beam for users.

INVISIBLE LASER RADIATION EXPOSURE TO BEAM IS DANGEROUS CLASS 1 LASER PRODUCT
OUTPUT POWER : 0.6 mW MAX WAVELENGTH : 790 nm



1. HANDLING THE PICK-UP

1. Shipping and storage cautions

- a. The pick-up must be stored in a conductive bag until immediately prior to its use.
- b. Do not drop it or subject it to impacts.

2. Repair cautions

- a. When handling the pick-up, be careful not to give it undue force or shock by your hands. Otherwise the pick-up may malfunction or the PCB may be cracked.
- b. The pick-up which has been minutely adjusted before shipment as one part. Never touch and move the adjusting points and setscrews of the pick-up unless otherwise described in the item of adjustment to avoid damage.

BEFORE REPAIRING THE CD PLAYER

1 Preparations

11. **Preparations**

- a. Many ICs, LSI and the Pick-up (laser diode) are used in the compact disc player. These components are sensitive to static electricity, and might be damaged by static electricity or high voltage, so particular care should be taken regarding this point.
- b. Many precision components and the lens are used in the pick-up.
Never attempt to make repairs, or to store parts, where the temperature or humidity is high, where magnetism is strong, or where there is much dust.

2 Notes regarding repairs

- a. Be sure to first disconnect the power plug before attempting to replace any component.
- b. All tools, instruments, etc., used for measuring must be grounded.
Grounding can be accomplished by using a conductive metal sheet on the work bench.
- c. To prevent AV leakage of the soldering iron, ground its metal part.
- d. Repair personnel must be grounded.

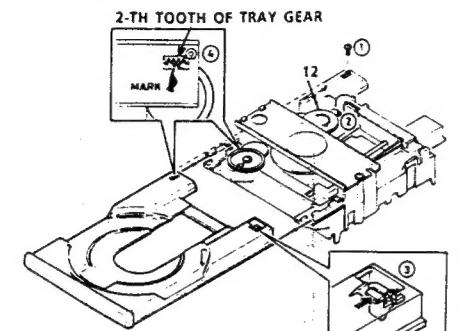
CD MECHANISM REMOVAL

1. PREPARATIONS

- When handling the pick-up, take care not to exert excessive force, and particular care should be taken not to touch the lens or the drive circuits printed circuit board pattern.
- When if disc tray was deep in, stop to pull the disc tray by force at hand and push from rear. Because it do so, break the teeth of Tray gear (6).

2. EXCHANGE THE DISC TRAY

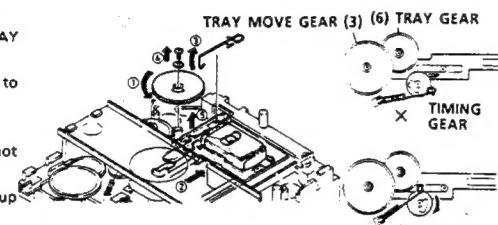
- Remove the screw. (①)
- Turn right the Gear (12) and take to left end the disc tray. (②) Be not sure the disc tray to pull by force at hand.
- Push forward the claw of disc tray, and pull out it. (③)
- When mount the disc tray, Gear (12) to turn the right way of the arrow. (④)
- Set the disc tray to put at mechanism chassis.
- Being push the disc tray, confirm the Tray drive gear(3) and disc tray are closely gear with as figure.(④)
- Fasten a screw. (①)



3. CD MECHANISM REMOVAL

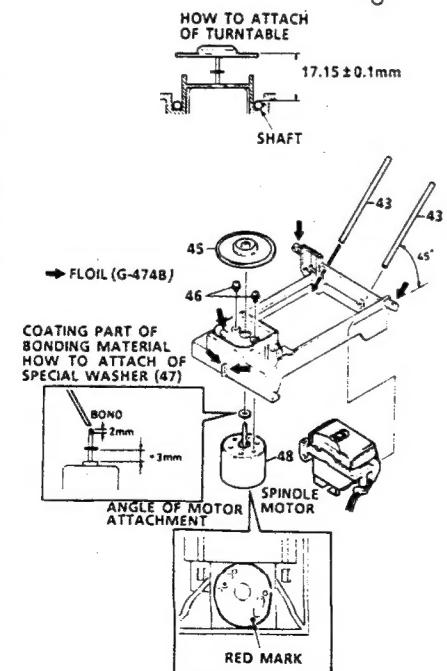
(1) HOW TO PICK-UP BLOCK

- Remove the disc tray. [See "2" EXCHANGE THE DISC TRAY 1),2),3)]
- Take to left end the gear(12) and turn the pick-up left way to the arrow ②.
- Remove the spring wire by tweezers. (③)
- Continuously, remove the pick rack gear. If pick-up was not move a direction of the arrow ②, it is not able to remove.
- If remove to fasten the pick-up block by the screw(51), pick-up block is removable.
- # Set the timing gear to ○ condition.



(2) HOW TO REPLACEMENT OF THE SPINDLE MOTOR

- First, prepare the new turntable and new special washer for replacement.
- The removed turntable will be formed by the heat of the soldering iron, and can not be reused.
- Prepare the dial-type calipers.
- Attached bonding material can be dissolved by using a 60W soldering iron to heat the shaft at the top part of the Turntable(45) for about one minute.
- Turntable (45) can then be removed from the shaft with very carefully applying force upward at the center of the lower surface of the turntable.
- Remove the two screws (46) and remove the Spindle motor (48).
- Wipe off the motor shaft from top to lower 10mm more by using a piece of cloth with methanol.
- Attach the special washer(47) to the spindle motor.
- Attach the motor to the chassis.
- Apply a half of grain of rice to mount at the shaft about 2mm under from top.



Bonding materials are mixed with "Three Bond 2001" and "2105F" and mixture ratio is 1:1.

CD MECHANISM REMOVAL

- Install the new turntable as shown in the right figure.

- Secure the turntable by pressing gently.

- Confirm any bonding material coming out of the upper face (hole) of the Turntable, if it do so be sure to attach the methanol and wipe away by using a piece of cloth or similar materials.

- Install the spindle motor as angle of previous page right below.

- Insert the shaft(43) as 45°angle.

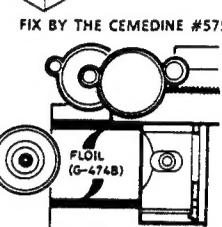
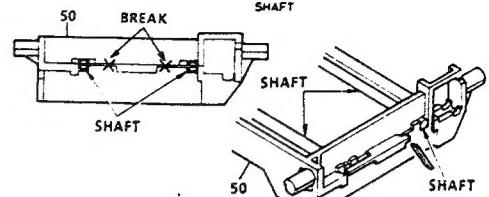
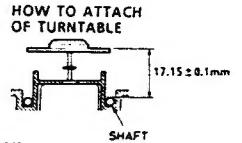
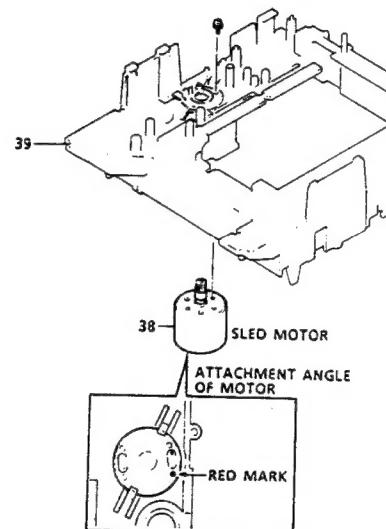
If broken the stopper wing, wipe the shaft by using a piece of cloth and apply the cemedine #575 and fix the chassis(50) and the shaft.

(3) REPLACEMENT AND LUBRICATION OF THE PICK-UP

- Pull out the two shaft (pick-up rail) from chassis.
- If the pick-up is reconditioned or replaced, be sure to wipe the rails and also apply a coating of FLOIL (G-474B) to their entire circumference and entire length.

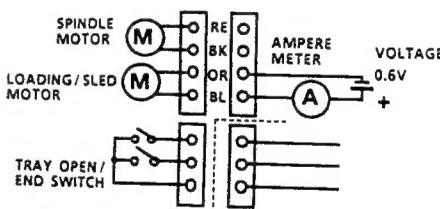
(4) REPLACEMENT OF THE SLED MOTOR

Remove the two pan-head screws that hold the motor, and then replace the motor (38).



(5) CHECKING THE OPERATION OF THE SLED MOTOR (The state of disc tray remove)

- Apply a voltage of 0.6V. Confirm the direction of movement of the pick-up to inner groove to outer groove can't stop and move it smoothly.
- Apply a voltage of 4.0V and after loading and gear (9) is slip. Confirm the current 120mA or more to at this time.

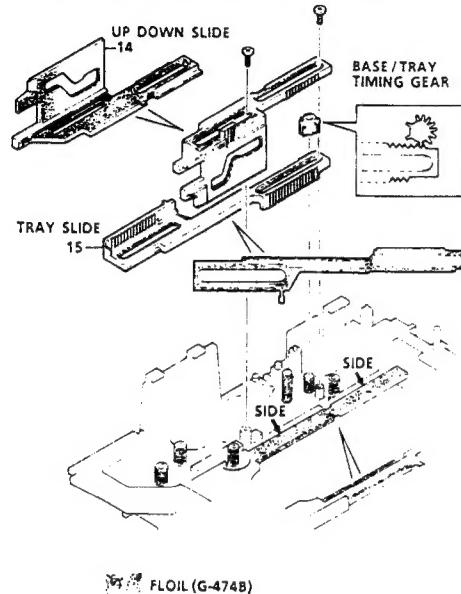


CD MECHANISM REMOVAL

4. CD MECHANISM ASSEMBLY & APPLY GREASE

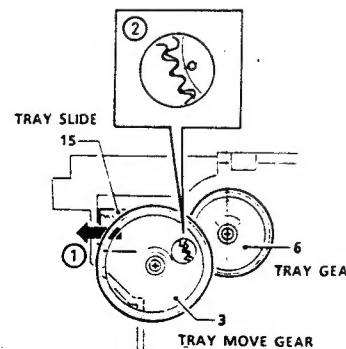
(1) APPLY GREASE AND INSTALL THE TRAY SLIDE

- 1) Apply the grease FLOIL (G-474B) at part of right figure
- 2) When insert a tray slide (15), set up the installation position with base and tray timing gear as follow figure.



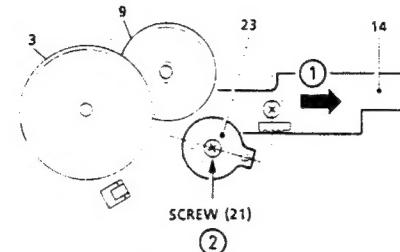
(2) INSTALL THE TRAY GEAR

- 1) Near the Tray slide (15) in the direction of the arrow (①)
- 2) Match the inner gear center of Tray gear (6).
- 3) Install the Tray move gear (3) with match the outer gear make (○) of Tray gear (6) as figure below.

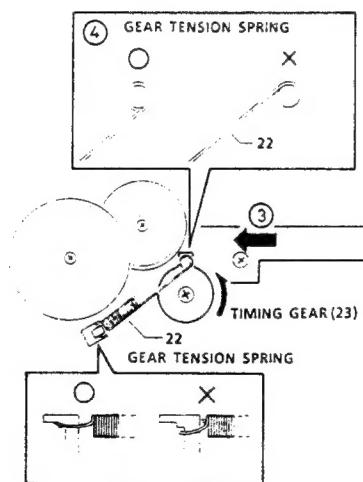


(3) INSTALL THE BASE-UP/DOWN SLIDE AND TIMING GEAR

- 1) When near the Base up/down slide (14) in the direction of the arrow (①), set up the four gear (23) as follow figure position.
- 2) Insert the timing gear and stop by the screw (21) (②)
- 3) Turn the timing gear (23) to left direction.



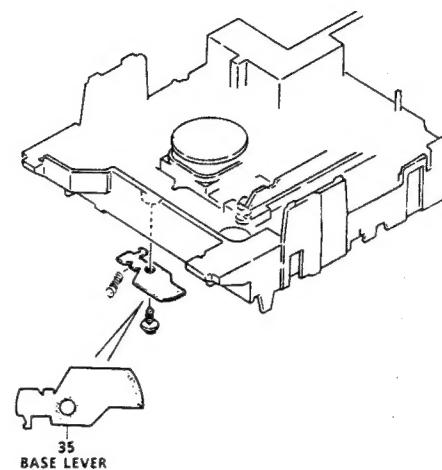
- 4) Hook the gear tension spring (22) to timing gear (23);



CD MECHANISM REMOVAL

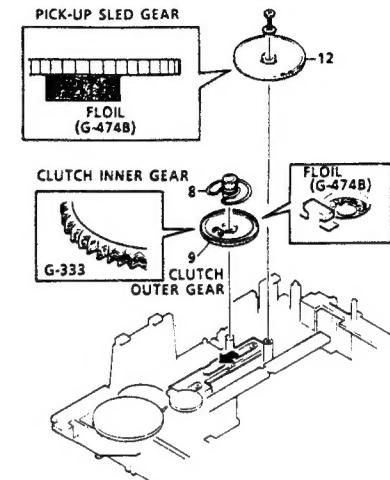
(4) APPLY A GREASE OF BASE LEVER (35)

Apply a coating of FLOIL (G-474B)



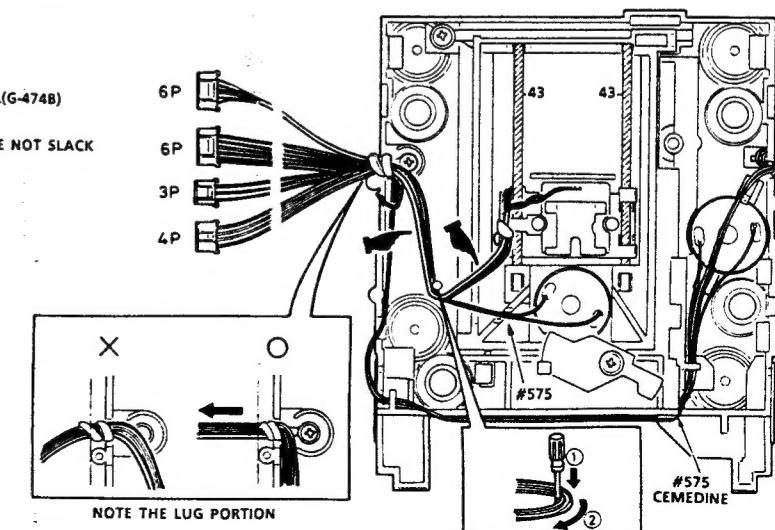
(5) APPLY A GREASE

- 1) Apply a coating of FLOIL (G-474B) to their entire circumference to Pick-up sled gear (12).
- 2) Apply a grease (G-333) to outside of clutch outer gear (9).
- 3) Apply a FLOIL (G-474B) to figure parts of clutch outer gear.



(6) LEAD RETAINER AND APPLY A CEMEDINE

- 1) Set up a pick-up to inner side and pass through on the pin (a), still more lead retainer not to touch at motors outside (b) and fixed the lug. Finally, confirm the pick-up moves smoothly from inner to outer circumference.
- 2) Apply a cemedine #575 for fix the lead retainer and fixed it.
- 3) Confirm the FLOIL (G-474B) to apply the pick-up rail (43).



CD ADJUSTMENT

- Measurement instruments
 - ① Test Disc : YEDS18(SONY)
 - ② Oscilloscope : 10MHz class or Storage scope
 - Oscilloscope : 10MHz class or DC voltage meter
 - ③ Frequency Counter
 - ④ Adjustment Driver (Non metallic) : for SVR11

In the adjustment, use the relay cord : 614 229 7094
For connection PCB :
CD MAIN PCB(CN142) and SERVO D/A PCB(CN105)

ITEM	CONNECTION	PARTS	REMARKS
④ PLL VCO Free Run	Frequency Counter (PLCK - GND)	T102	4.30 ± 0.01 MHz
⑤ Tracking Balance	Oscilloscope (TE - GND)	SVR11	Symmetrical Waveform

1. INITIAL

- ① Perform initial setting for SVR11 as shown in fig.4.

2. FREERUN FREQUENCY ADJUSTMENT FOR PLL-VCO.

- ① Connect the frequency counter to TP37(H),TP104(E).
- ② Turn on the power of the unit.
- ③ Adjust T102 so that the frequency counter reads 4.30 ± 0.01 MHz.
- If this adjustment is no good, get the long seek time, not read TOC, not sound in the worst case become high speed tuning reverse and it may wound the disc.

3. TRACKING BALANCE

- ① Connect the oscilloscope to TP103(TE),TP104(E).
- ② Turn on the power of the unit.
- ③ Insert Test Disc and press the Play button.
- ④ Continuously press the forward(or reverse) search button.
- ⑤ Adjust SVR11 so that the waveform of TP103(TE) is vertically symmetrical relative to DC 0V level. (Refer to fig.1).
- If this adjustment is imperfect, become run away the sled motor (pick sending motor), inferior playability.

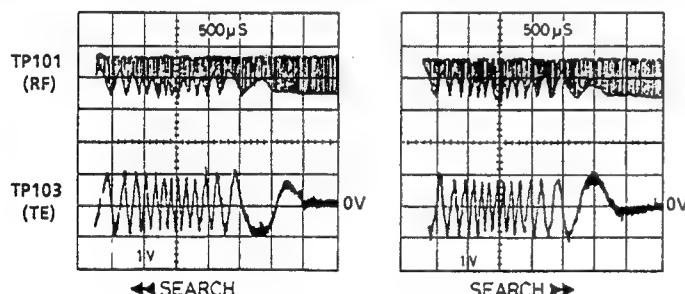


Fig.1

Eye Pattern (Refer Figure)

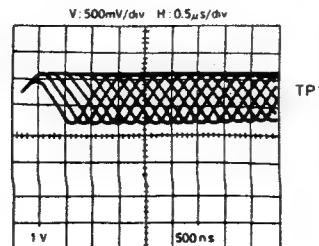


Fig.2

CD ADJUSTMENT

4. PARTS LOCATION

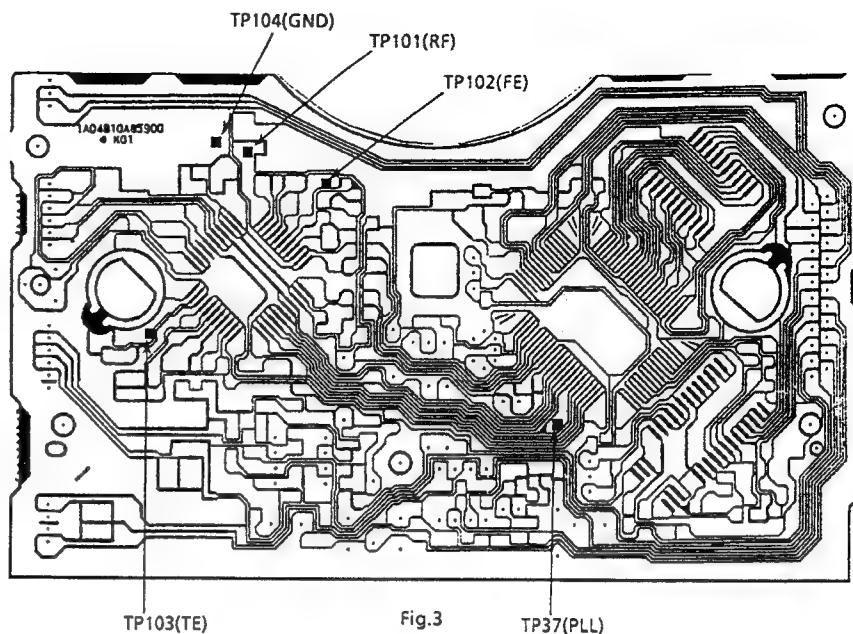


Fig.3

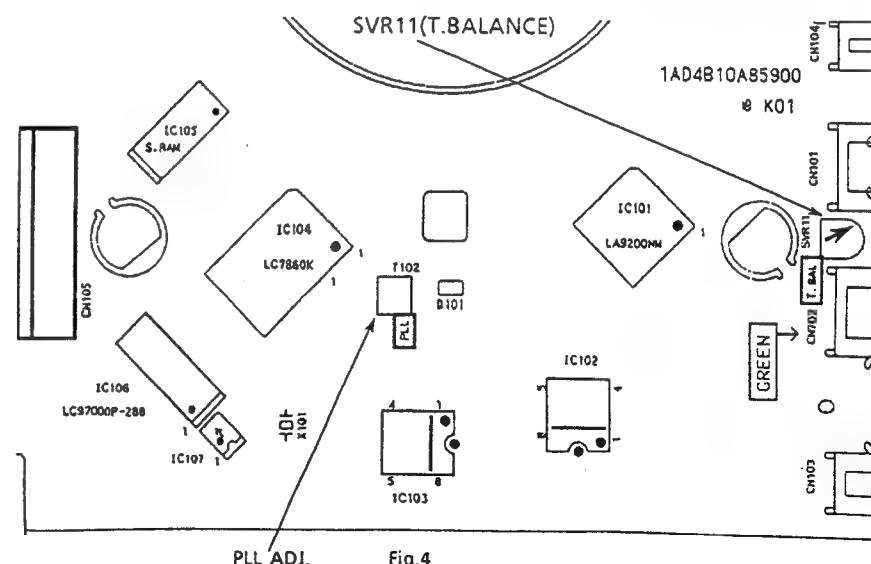
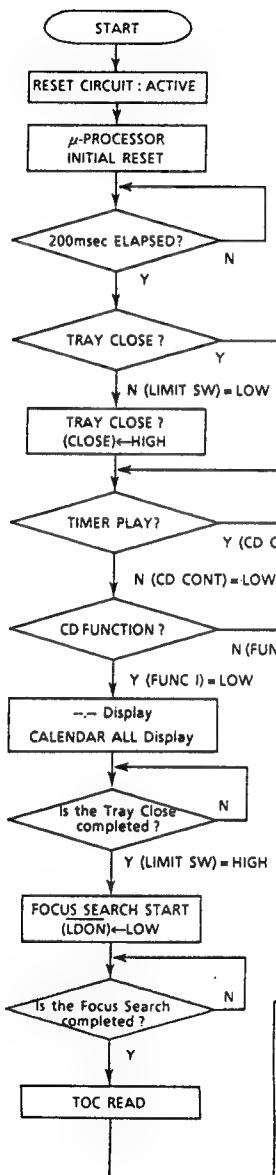


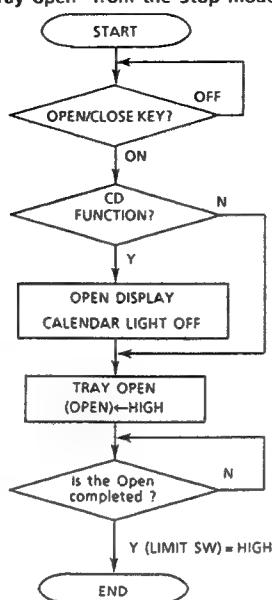
Fig.4

FLOW CHART (CD)

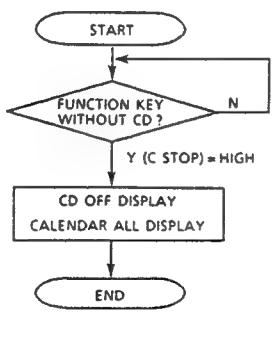
(1) Power On Mode



(2) The Tray open from the Stop mode

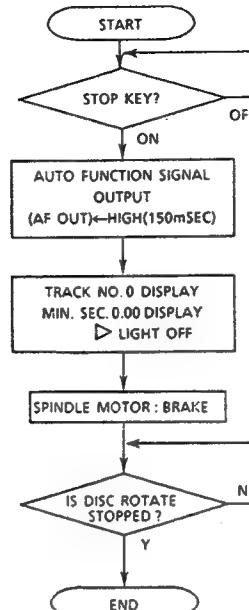


(3) The Other Function from the Stop mode

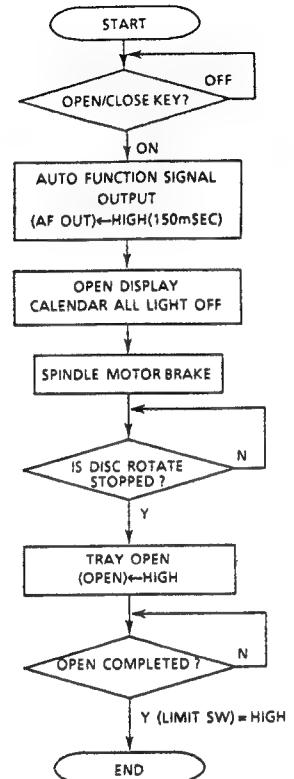


FLOW CHART (CD)

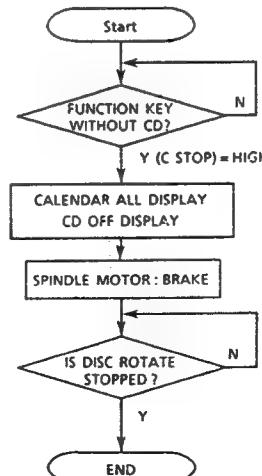
(4) To the Stop mode from the Play-Back



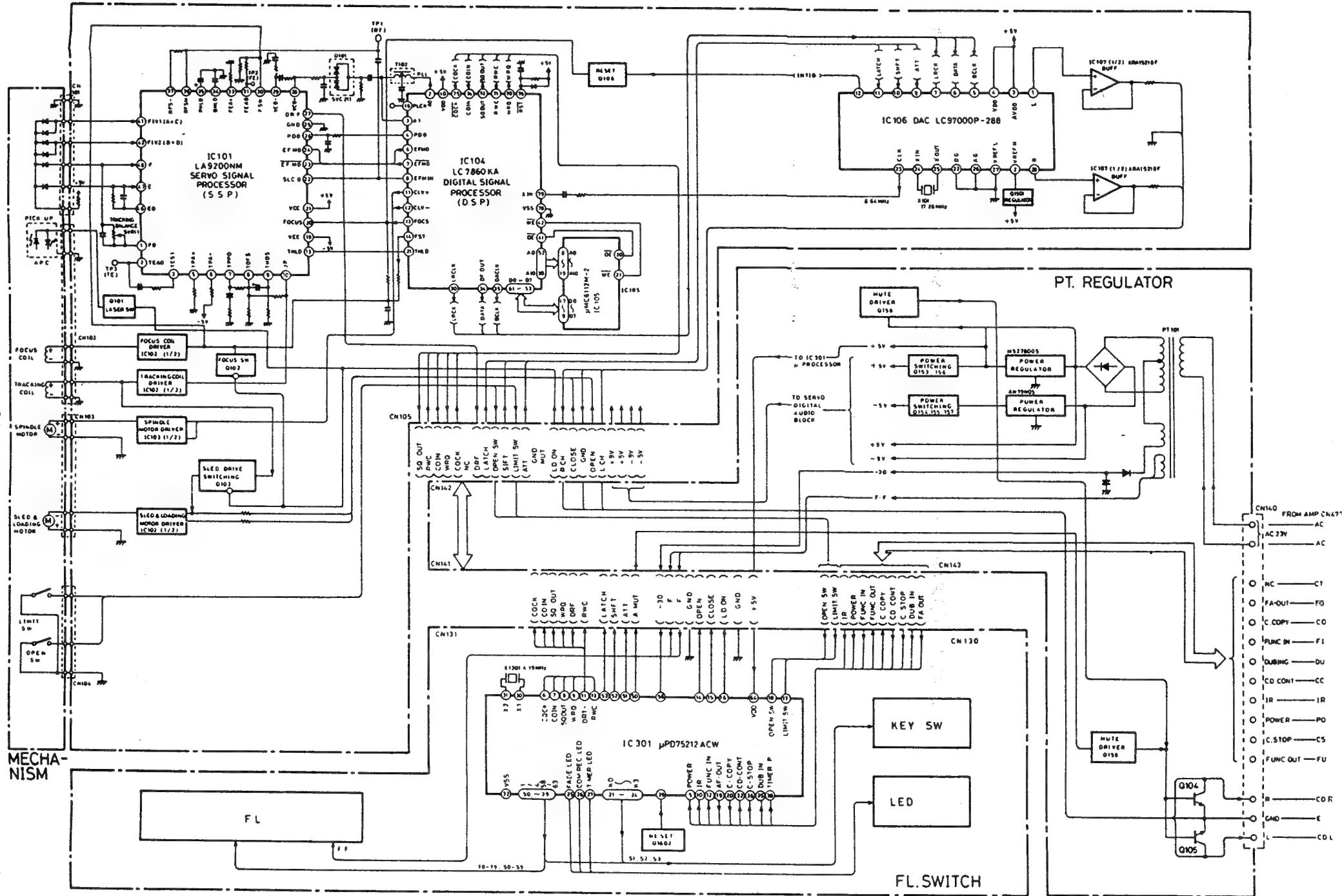
(6) To the Open mode from the Play-Back



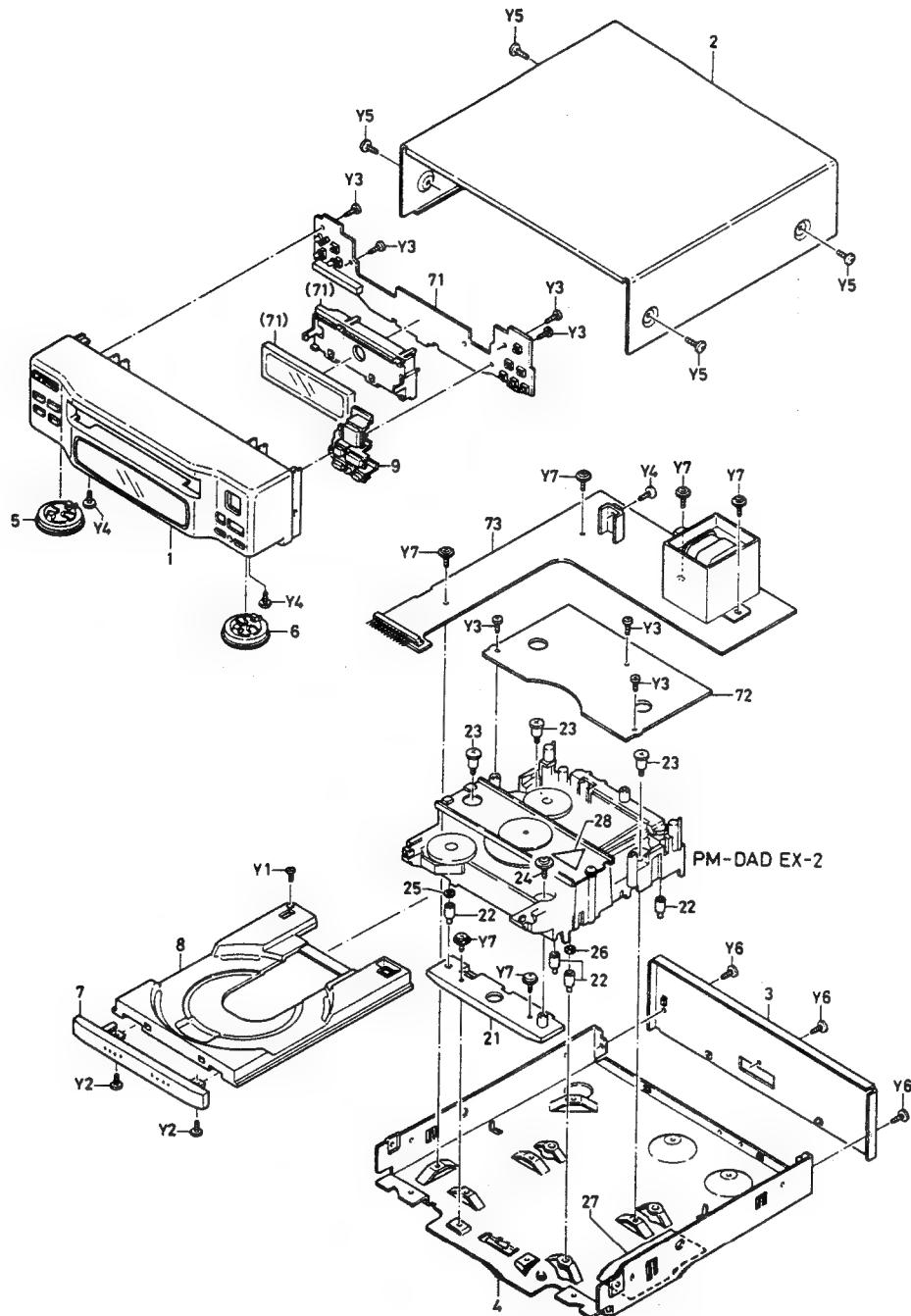
(5) To the Other mode from the Play-Back



MECHA SERVO



EXPLODED VIEW (CD)



PARTS LIST (CD)

CABINET & CHASSIS (AD-65)

REF.NO.	PART NO.	DESCRIPTION
1	614 236 2044	ASSY.PANEL.FRONT(B)
	614 236 2037	ASSY.PANEL.FRONT(W)
2	614 227 0974	ASSY.CABINET(B)
	614 236 1986	ASSY.CABINET(W)
3	614 236 2167	PANEL.REAR
4	614 227 5641	ASSY.CABINET.BOTTOM
5	614 234 7218	ASSY.FOOT.FRONT-L
6	614 234 7225	ASSY.FOOT.FRONT-R
7	614 236 2136	ESCHUTCHEON.CD DOOR(B)
	614 236 2129	ESCHUTCHEON.CD DOOR(W)
8	614 224 2124	TABLE.LOADING.CD TRAY
9	614 236 2211	BUTTON.PLAY/PAUSE(W)
	614 227 1643	BUTTON.PLAY/PAUSE(B)
21	614 227 5740	MOUNT.M-CD MECHA
22	614 195 6978	RUBBER CUSHION.MECHA FLOAT
23	412 004 5705	SPECIAL SCREW.MECHA FIX(3 USED)
24	412 003 1708	SPECIAL SCREW.MECHA FIX(1 USED)
25	412 012 8002	SPECIAL WASHER.CD MECHA(LEFT)
26	412 012 7906	SPECIAL WASHER.CD MECHA(RIGHT)
27	614 232 0464	LABEL.SAFETY.CAUTION.LASER BEAM
28	614 191 3698	LABEL.CAUTION.LASER BEAM

REF.NO.	PART NO.	DESCRIPTION
S1003	614 220 5631	SWITCH.TACT.EDIT
S1004	614 219 0876	SWITCH.TACT.C.REC
S1005	614 220 5631	SWITCH.TACT.OPEN/CLOSE
S1006	614 220 5631	SWITCH.TACT.PLAY/PAUSE
S1007	614 220 5631	SWITCH.TACT.STOP/CLEAR
S1008	614 220 5631	SWITCH.TACT.MEMORY
S1009	614 220 5631	SWITCH.TACT.FWD
S1010	614 220 5631	SWITCH.TACT.BACK
X1301	614 215 5608	RESONATOR.4.19MHZ

SERVO-SIGNAL PROCESSOR P.C.B. ASSY

REF.NO.	PART NO.	DESCRIPTION
72	614 231 9697	ASSY.PCB.SERVO DA
CN101	614 017 3857	PLUG.6P.PICK SENSOR
CN102	614 017 3857	PLUG.6P.PICK COIL
CN103	614 017 3833	PLUG.4P.MECHA MOTOR
CN104	614 017 3826	PLUG.3P.MECHA SW
CN105	614 227 8017	SOCKET.24P.TO MAIN PCB
D101	407 105 0100	VARACTOR DI SVC211-B-AL
D102	407 003 3609	DIODE DAN202K
IC101	409 124 6507	IC LA9200NM.SSP
IC102	409 139 4901	IC LA6517
IC103	409 139 4901	IC LA6517
IC104	409 200 0702	IC LC7860KA.DSP
IC105	409 228 0500	IC UM6116H-2
IC106	409 206 9006	IC LC97000P-288.DAC
IC107	409 241 5506	IC XRA15218F
Q101	405 096 9607	TR DTA1132K
Q102	405 000 4100	TR DTC124EK
Q103	405 000 4100	TR DTC124EK
Q106	405 014 4509	TR 2SC2412K-R
R1901	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R1902	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R1903	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R1904	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R1905	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R1906	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R1951	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R1952	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R1953	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R1954	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R1955	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R1956	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R1957	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R1958	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R1959	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R1960	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R1961	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R1962	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R1963	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
SUR11	614 203 6655	SEMI-FIXED V.R.100K OHM(B).T.BAL
T102	614 226 7936	TRANS.OSC.PLL
TP101	614 227 6839	TERMINAL.CHECKER CHIP.RF
TP102	614 227 6839	TERMINAL.CHECKER CHIP.FE
TP103	614 227 6839	TERMINAL.CHECKER CHIP.TE
TP104	614 227 6839	TERMINAL.CHECKER CHIP.GED
TP105	614 227 6839	TERMINAL.CHECKER CHIP.PLL
X101	614 228 9426	RESONATOR.17.28MHZ

CD FRONT P.C.B. ASSY

REF.NO.	PART NO.	DESCRIPTION
71	614 228 4391	ASSY.PCB.FL.MICON
	614 227 1865	MOUNT.E-FL
CN130	614 017 2621	PLUG.1P.TO MAIN PCB
CN131	614 226 2542	SOCKET.20P(B TO B).TO MAIN PCB
D168	407 012 4406	DIODE 1SS133
OR	407 007 9904	DIODE GH401
D169	407 012 4406	DIODE 1SS133
OR	407 007 9904	DIODE GH401
D171	407 012 4406	DIODE 1SS133
OR	407 007 9904	DIODE GH401
D173	407 053 8807	ZENER DIODE MTZ9.1B
D174	407 012 4406	DIODE 1SS133
OR	407 007 9904	DIODE GH401
D175	407 012 4406	DIODE 1SS133
OR	407 007 9904	DIODE GH401
D176	407 012 4406	DIODE 1SS133
OR	407 007 9904	DIODE GH401
D177	407 127 5107	LED SLP-881C-51-B.T.EDIT
OR	407 132 5901	LED SLP-881C-51-C.T.EDIT
D178	407 127 5107	LED SLP-881C-51-B.C.REC
OR	407 132 5901	LED SLP-881C-51-C.C.REC
D179	407 127 5107	LED SLP-881C-51-B.F.EDIT
OR	407 132 5901	LED SLP-881C-51-C.F.EDIT
FL101	614 228 7950	FLUORESCENT TUBE.FOR CD
IC301	410 112 3309	IC UP075212ACW-256
Q162	405 000 4407	TR DTC124ES
R	405 018 2600	TR 2SC3400
S1001	614 219 0876	SWITCH.TACT.TIME EDIT
S1002	614 219 0876	SWITCH.TACT.FADE EDIT

PARTS LIST (CD)

CD MAIN P.C.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
73	614 231 9703	ASSY,PCB,SYSTEM
DR	614 121 6829	HEAT SINK,FOR IC151
C1606	614 121 5891	HEAT SINK,FOR IC151
C1607	403 043 3104	ELECT 2200U N 16U
CN140	403 043 3104	ELECT 2200U N 16U
CN141	614 227 2985	SOCKET,15P,TO AMP.UNIT
CN142	614 225 3564	PLUG,24P,TO SERVO-S.P PCB
CN143	614 227 7782	SOCKET,24P,TO SERVO-S.P PCB
CN170	614 017 2621	PLUG,11P,TO FRONT PCB
CN171	614 226 8735	CORD,24P,CN105-CN142
D151	614 227 8642	ASSY,CONNECTOR-S.11P,CN143-CN130
D153	407 050 2204	ZENER DIODE GZA30Y
D154	407 050 5502	ZENER DIODE GZA5.6Y
D155	407 004 9105	DIODE DSF10C
DR	407 012 3300	DIODE 1SR35-2004
D156	407 005 2006	DIODE DS1350-KB1
OR	408 007 9307	DIODE 1SR35-2004-HP
D158	407 005 2006	DIODE DS1350-KB1
DR	408 007 9307	DIODE 1SR35-2004-HP
D159	407 005 2004	DIODE DS1350-KB1
DR	408 007 9307	DIODE 1SR35-2004-HP
D161	407 050 4802	ZENER DIODE GZA5.1Y
D162	407 005 4505	DIODE DS442X
	407 005 4505	DIODE DS442X

REF.NO.	PART NO.	DESCRIPTION
IC151	Δ409 189 4203	IC M5278D05
IC152	Δ409 224 2102	IC AN79N05
PT101	Δ614 232 0013	POWER TRANS
Q104	405 033 6805	TR 2SD1468S-S
Q105	405 033 6805	TR 2SD1468S-S
Q153	405 000 3400	TR DTC114TS
DR	405 035 1600	TR RN1211
Q154	405 000 3400	TR DTC114TS
DR	405 035 1600	TR RN1211
Q155	405 002 1505	TR 2SA1048-Y
DR	405 006 1806	TR 2SA933S-R
DR	405 006 1905	TR 2SA933S-S
Q156	Δ405 099 1004	TR 2SD592-S
DR	Δ405 099 7501	TR 2SD592-R
Q157	Δ405 099 0908	TR 2SB621-S
DR	Δ405 099 7303	TR 2SB621-R
Q158	405 082 4609	IR DTA123YS
Q159	405 082 4609	IR DTA123YS
R1651	402 046 9304	RESISTOR 270 J- 1/2W

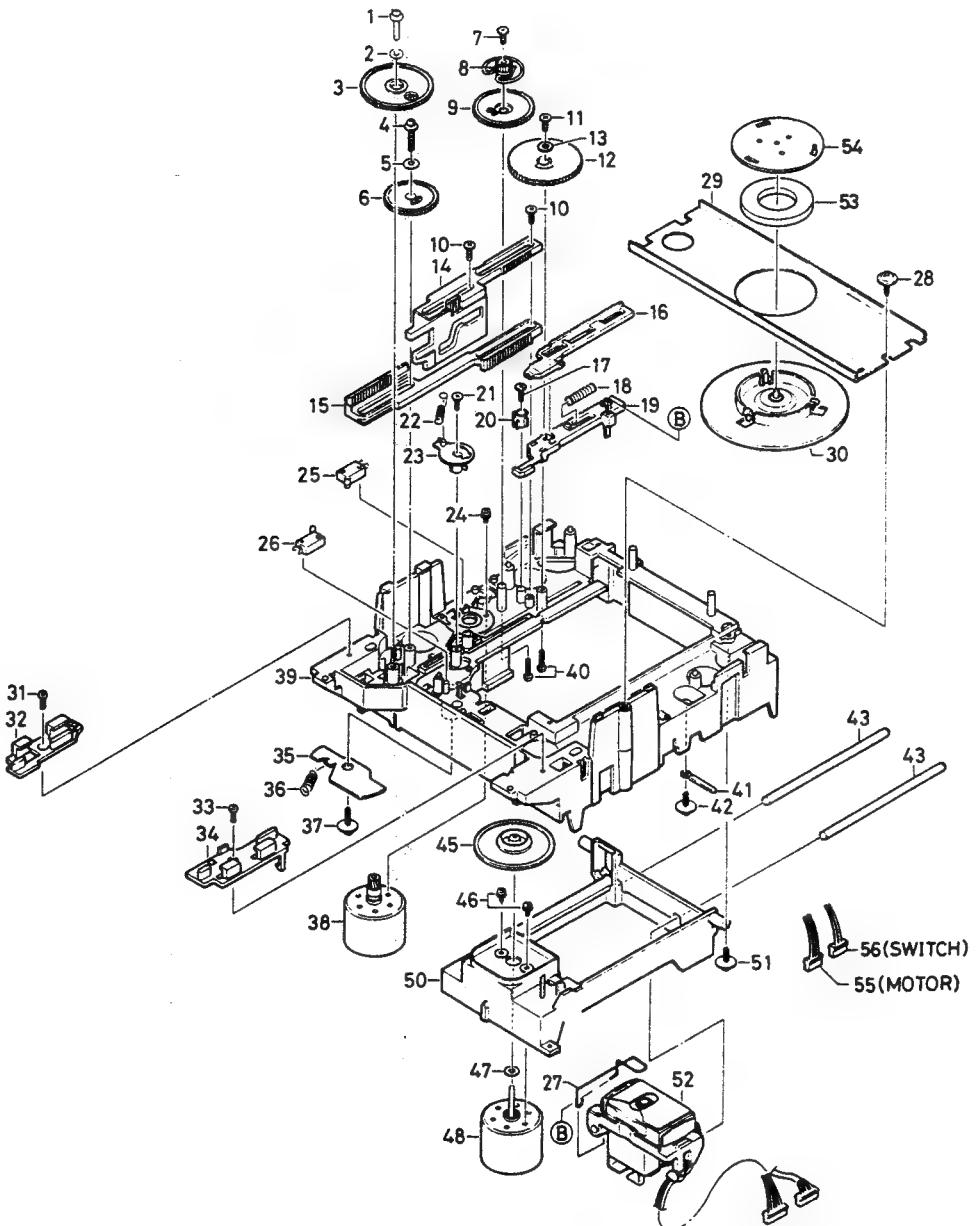
PARTS LIST (CD MECHANISM)

CD MECHANISM (PM-DAD EX2)

REF.NO.	PART NO.	DESCRIPTION
1	411 119 8908	SCR S-TP6 PAN 2X14,GEAR 3 FIX
2	411 087 4704	WASHER V 2X6X0.4,GEAR FIX
3	614 224 2056	GEAR,TRAY MOVE
4	411 119 8908	SCR S-TP6 PAN 2X4,GEAR 6 FIX
5	411 087 4704	WASHER V 2X6X0.4,GEAR FIX
6	614 224 2049	GEAR,TARY
7	412 031 2104	SPECIAL SCREW,GEAR 8 FIX
8	614 229 6066	ASSY,GEAR,CLUTCH,INNER, FOR SERVICE
9	614 224 1974	GEAR,CLUTCH OUTER
10	412 031 2104	SPECIAL SCREW,SLIDE 14 FIX
11	412 031 2104	SPECIAL SCREW,GEAR 12 FIX
12	614 224 1998	GEAR,PICK SLED
13	412 014 2800	SPECIAL WASHER,PICK GEAR FIX
14	614 233 6311	SLIDE,BASE UP/DOWN
15	614 224 2094	SLIDE,TRAY
16	614 226 2018	GEAR,PICK RACK UPPER
17	412 031 2104	SPECIAL SCREW,GEAR 20 FIX
18	614 225 0884	SPRING,COMP,RACK BACK
19	614 224 2001	GEAR,PICK RACK LOWER
20	614 224 2052	GEAR,BASE/TRAY TIMING
21	412 031 2104	SPECIAL SCREW,GEAR 23 FIX
22	614 225 0860	SPRING,TENS,GEAR 23 TENSION
23	614 229 1337	GEAR,TIMING
24	411 044 7205	SCR PAN-SW 2X4,SLED MOTOR FIX
25	614 018 9223	SWITCH,LIMIT
26	614 018 9223	SWITCH,TRAY OPEN
27	614 229 4529	SPRING,WIRE,PICK BACK
28	411 020 9803	SCR S-TP6 BRZ-FLG 3X6,CHUCK BRACKET FIX
29	614 226 7318	BRACKET-H,CHUCK
30	614 228 5848	ASSY,PULLEY,CHUCK
31	411 022 7807	SCR S-TP6 PAN 2X6,TRAY BRACKET

REF.NO.	PART NO.	DESCRIPTION
32	614 224 3176	FIX
33	411 022 7807	BRACKET-M,TRAY GUIDE(L)
34	614 224 3183	SCR S-TP6 PAN 2X6,TRAY BRACKET
35	614 233 6304	FIX
36	614 226 5536	BRACKET-M,TRAY GUIDE(R)
37	411 020 9902	LEVER,BASE
38	614 225 4820	SPRING,COMP,BASE LEVER MOVE
39	614 228 5855	SCR S-TP6 BRZ-FLG 3X6,BASE LEVER FIX
40	412 031 2104	ASSY,MOTOR,LOADING,SLED
41	614 129 9136	CHASSIS,LOADING
42	411 021 5735	SPECIAL SCREW,BOSS REINFORCEMENT
43	614 145 9622	LUG,PICK UP LEAD FIX
OR	614 227 6204	SCR S-TP6 BIN 3X6,PICK LEAD FIX
45	614 234 0411	SHAFT,PICK RAIL
46	614 216 9341	SHAFT,PICK RAIL
47	411 044 7205	TURN TABLE
48	614 224 1882	SCR PAN-SW 2X4,SPINDLE MOTOR FIX
50	614 224 1950	SPECIAL WASHER,ADHESIVE ESCAPE STOP
51	411 020 9803	COMMUTATE MOTOR,SPINDLE
52	614 218 6855	CHASSIS,BASE
53	614 226 6878	SCR S-TP6 BRZ-FLG 3X6,BASE
54	614 226 6885	CHASSIS FIX
55	614 229 1795	PICKUP,LASER,SF-90
56	614 229 1801	MAGNET,CHUCK
	614 229 6431	PLATE,MAGNET FIX
		ASSY,CONNECTOR-S.4P W/LEAD, SPINDLE,SLED MOTOR
		ASSY,CONNECTOR-S.3P W/LEAD, LIMIT,TRAY OPEN SWITCH SHEET

EXPLODED VIEW (CD MECHANISM)



IC VOLTAGE TABLE (CD)

IC 101 LA9200NM

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	-0.3	fluc	0.2	0											0	3.8	0	4.0	-5.0	0
STOP	0		0.3	0	0	0	0	0	0	0	0	0	0	4.8	4.3	4.1	4.1	4.0	-5.0	0
Pin No.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	4.9	2.5	2.6	2.4	0	2.4	4.16	2.5	2.4	fluc	-0.3	0.3	0.3	0.8	2.9	1.7		0.3	-5.0	5.0
STOP	4.9	3.6	1.5	1.6	0	2.4	0	2.4	2.4	0	0.6	0.6	0.6	0.2	-0.2	-0.1	0	4.2	4.9	5.0
Pin No.	41	42	43	44	45	46	47	48												
PLAY				-5.0																
STOP	0	0	-5.0	0	0	0	0	0												

IC 102 · 103 LC6517

Pin No.	1	2	3	4	5	6	7	8
PLAY	fluc	10	fluc	-10	fluc	fluc	fluc	fluc

IC 104 LC7860KA

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY		2.5	2.4	2.4	0	2.4	2.4	2.5	0	4.9	0.8	0	0	3.0	4.2	0	4.2	2.5	4.9	
STOP		2.5	2.4	2.4	0	1.4	1.2	2.5	0	4.9				3.0	4.2	4.2		2.5	4.9	0
Pin No.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY									1.0	2.5	4.9	2.0	1.0	2.3	2.4		2.4	0	2.4	2.4
STOP	0	0	0	0	0	0	0	0	1.0	2.5	4.9	2.0	1.0	2.0	2.4		2.4	0	2.4	2.4
Pin No.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
PLAY	3.6	4.5	2.4	2.4	2.4	2.4	2.4	2.4	1.6	1.6	1.6	1.6	2.6	2.6	2.6	0	2.4	2.4	2.4	2.4
STOP	3.6	4.5	2.4	2.4	2.4	2.4	2.4	2.4	1.6	1.6	1.6	1.6	1.4	1.4	1.4	0	3.6	3.6	3.6	1.6
Pin No.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
PLAY	2.4				fluc		0.3	fluc	2.4	0.2	fluc	fluc	4.9	fluc	4.9	5	0		2.3	2.3
STOP	3.6				2.3		0.3		2.4	0			4.9		4.9	5	0	0	2.3	2.3

IC 106 LC97000P-288

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	fluc	4	5	5	fluc	fluc	---	0	5	5	5	5	0	0	0	5	5	0	0	
Pin No.	21	22	23	24	25	26	27	28												
PLAY	0	0	fluc	fluc	fluc	0	0	fluc												

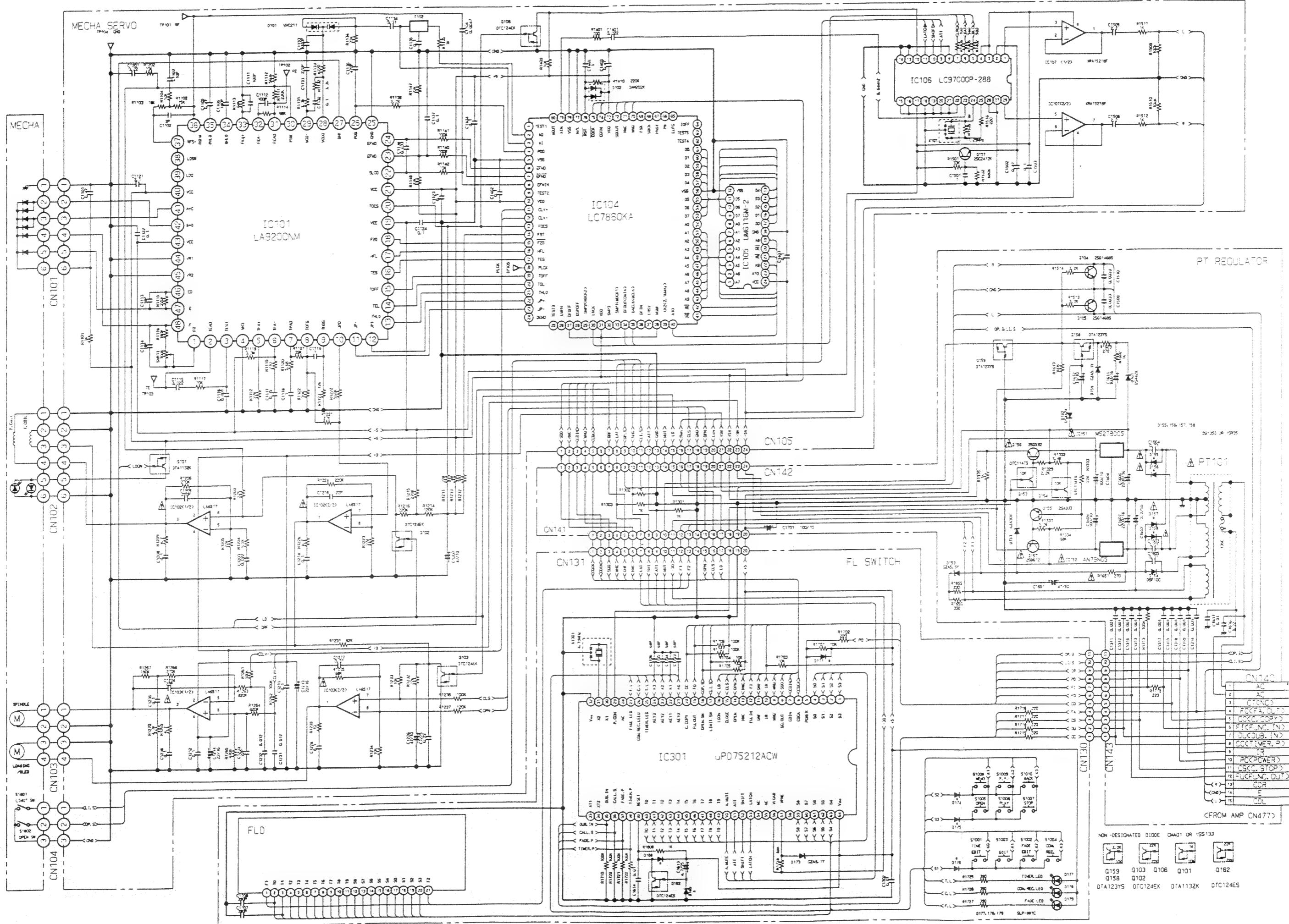
IC 107 XRA15218F

Pin No.	1	2	3	4	5	6	7	8
PLAY	fluc	fluc	fluc	-5	fluc	fluc	fluc	5

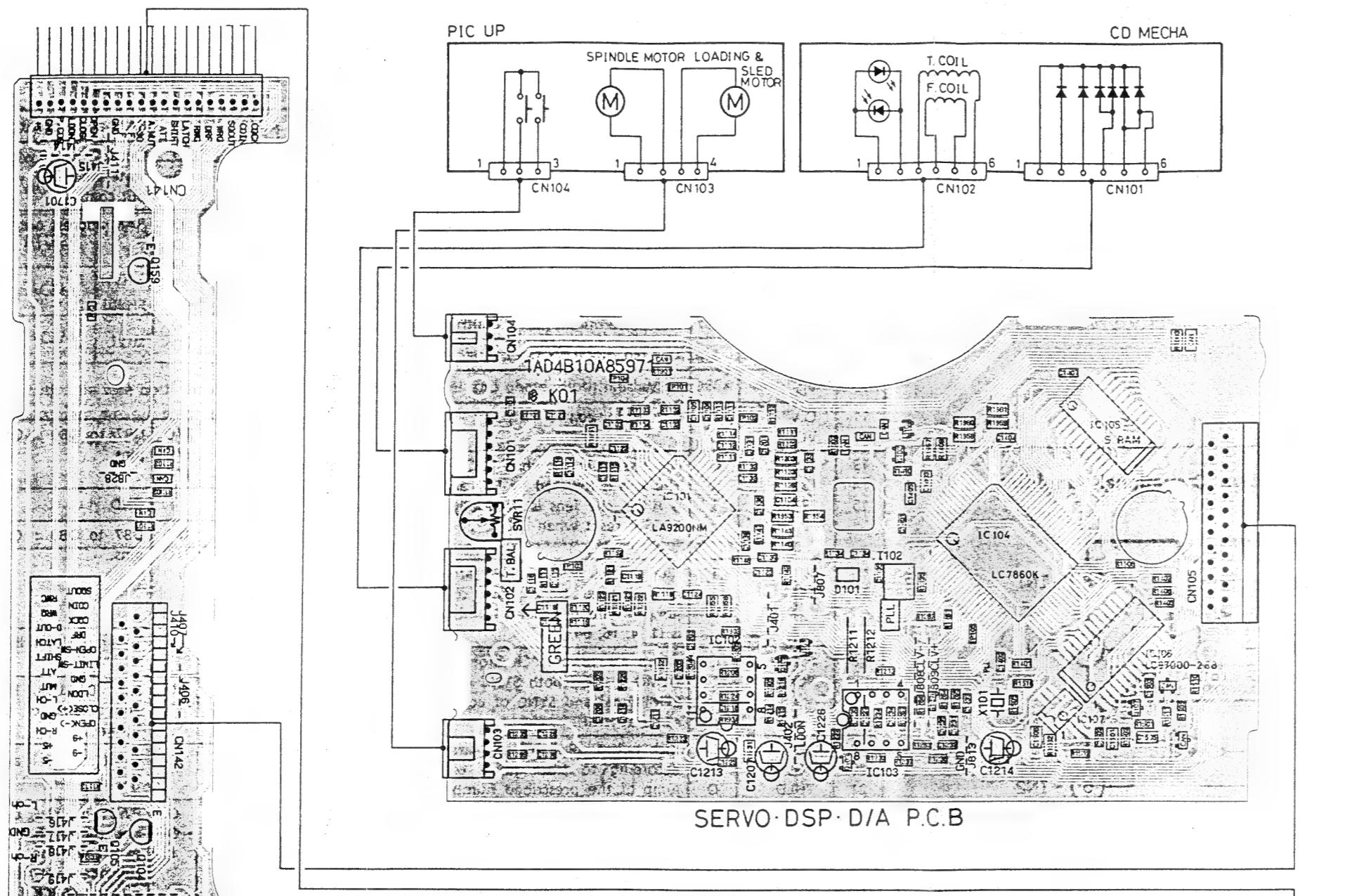
IC 301 μPD75212ACW

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	fluc				5	5	0	0	0	5	4	0	0	5	5	0	5	0	5	
STOP				1						0			opn	cls	5	cls	opn			
Pin No.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	fluc	fluc	fluc	fluc	5	5	5		0	4.5	5.5	0	0	0				5	fluc	
STOP					0	0		5												
Pin No.	41~49	51	52	53	54	55	56	57	58~63	64										
PLAY	fluc	0	5	5			-32	-4	fluc	5										
STOP		5							fluc	5										

SCHEMATIC DIAGRAM (CD)



WIRING DIAGRAM (CD)

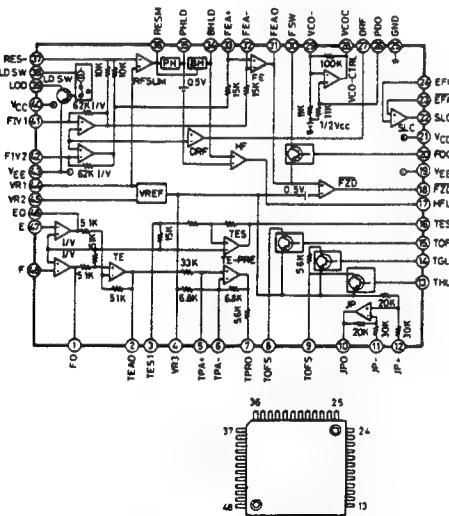


TRANSISTOR VOLTAGE TABLE (CD)

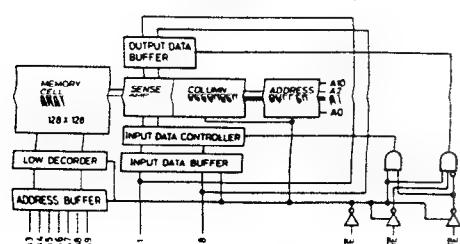
TRANSISTOR

IC BLOCK DIAGRAM (CD)

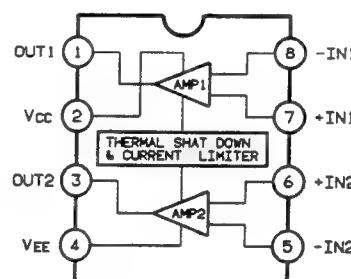
IC 101 LA9200NM (RF-Amplifier + SERVO)



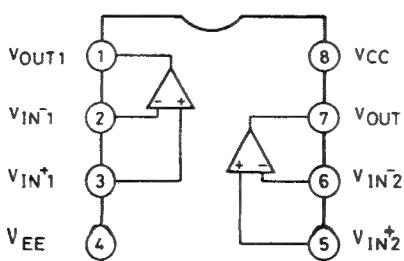
IC 105 UM6116M-2 (2 x 8 16 CMOS SRAM)



IC 102 · 103 LA6517 (Dual Operational Amplifier)



IC 107 XRA15218F (Dual Operational Amplifier)



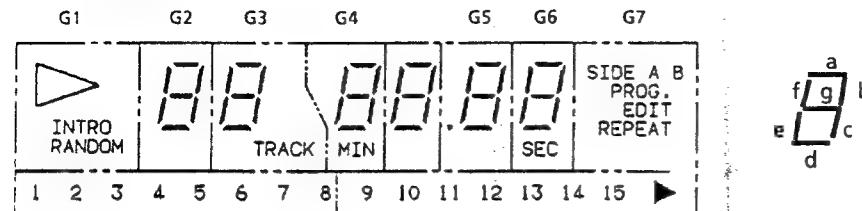
IC BLOCK DIAGRAM (CD)

IC104 LC7860KA (Digital Signal Processor)

No.	Pin Name	I/O	Function
1	TEST 1	I	Test pin. Normally not connected.
2	AO	O	VCO is generated by connecting resonance circuit between A1 and AO (8.6436MHz). PDO is phase output with EFM signal, and is set to increase frequency when "+".
3	AI	I	
4	PDO	O	
5	V _{SS}	-	GND
6	EFMO	O	1 to 2V P-P HF signal is input to EFMIN.
7	EFMO	O	Output from EFMO and EFMOUT passes through amplitude limiter and reverse phase EFM signal is obtained from both. This performs slice level control.
8	EFMIN	I	
9	TEST 2	I	Test pin. Normally not connected.
10	V _{DD}	-	+5V
11	CLV +	O	Disk motor control output.
12	VCO -	O	
13	FOCS	O	Focus servo is off when FOCS is HIGH.
14	FST	O	The lens is lowered by FST and then FST is HIGH, the lens is gradually pulled up.
15	FZD	I	FOCS is reset when FZD is generated. For focus-in.
16	HFL	I	Kick pulses, JP+ and JP-, are generated according to track jump command. A jump of the prescribed number of tracks is (1, 4, 16, 64).
17	TES	I	
18	FSEQ / PCK	O	When 4.3218MHz PCK monitor terminal / DEMO is HIGH both SYNC detected from EFM signal and SYNC of counter are the same at HIGH.
19	TOFF	O	Kick pulses, JP+ and JP-, are generated
20	TGL	O	according to track jump command. A
21	THLD	O	jump of the prescribed number of tracks
22	JP +	O	is (1, 4, 16, 64).
23	JP -	O	
24	DEMO	I	Set and sound output adjustment pin function.
25	TEST 3	I	Test pin. Normally not connected.
26	EMPH	O	De-emphasis is necessary when HIGH.
27	DFOFF	I	ON / OFF switch for digital filter. No filtering when HIGH.
28	DSPOFF	I	Test pin. Normally LOW.
29	SMP 2	O	Signal output to DAC and signal for L/R switching and sample hold.
30	LRCLK	O	
31	V _{DD}	-	+5V
32	SMP 3	O	Signal output to DAC and signal for L/R switching and sample hold.
33	SMP 1	O	
34	DFOUT	O	
35	DACKL	O	
36	DFIN	I/O	Signal output for CD-ROM.
37	LRSY	O	CD-ROM sync signal.
38	MSBF	I	Signal output to DAC and signal for L/R switching and sample hold.
No.	Pin Name	I/O	Function
39	CK 2	O	2.1609MHz
40	AD10	O	RAM address output.
41	OE	O	Output state when WE = L and input state when WE = H. OE is for input/output control.
42	WE	O	
43	AD09	O	RAM address output.
44	AD08	O	
45	AD07	O	
46	AD06	O	
47	AD05	O	
48	AD04	O	
49	AD03	O	
50	AD02	O	
51	AD01	O	
52	AD00	O	
53	DB7	I/O	DB7 to DB0 : Connected to RAM data pins.
54	DB6	I/O	
55	DB5	I/O	
56	V _{SS}	-	GND
57	DB4	I/O	DB7 to DB0 : Connected to RAM data pins.
58	DB3	I/O	
59	DB2	I/O	
60	DB1	I/O	
61	DB0	I/O	
62	TEST 4	I	Test pin. Normally not connected.
63	TEST 5	I	
64	IOFF	I	For CD ROM. HIGH time interpolation and holding of previous value not performed.
65	EFLG	O	C1 / C2 1-level and 2-level error correction.
66	PW	O	PWSY is SYNC combining main and sub
67	PWSY	O	and change from HIGH to LOW is taken externally. The P, Q, R, S, T, U, V, and W subcodes are read by sending 8 clock pulses to SBCK.
68	SBCK	I	
69	FSX	O	7.35kHz sync signal output.
70	WRQ	O	WRQ goes HIGH when data of subcode
71	RWC	I	Q passes CRC check. This is taken externally and the data from SQOUT is read
72	SQOUT	O	by sending CQCK. When data is required
74	COIN	I	with LSB first, M/L is driven LOW. After
75	CQCK	I	the micro-processor sets RWC to HIGH,
77	M/L	I	the command is given by output synchronized with the CQCK command data.
73	V _{DD}	-	+5V
76	RES	I	Goes LOW once when power is turned on.
78	V _{SS}	-	GND
79	XIN	I	Pin for connection to 8.6436MHz crystal oscillator.
80	XOUT	O	

IC BLOCK DIAGRAM (CD)

FLD (CD Fluorescent Display)



Segment Map

	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10
S1	a	a	a	a	a	a	SIDE	1	9	
S2	INTRO	b	b	b	b	b	A	2	10	
S3	RANDOM	f	f	f	f	f	B	3	11	
S4	g	g	g	g	g	g	PROG.	4	12	
S5	e	e	e	e	e	e	EDIT	5	13	
S6	e	e	e	e	e	e	REPEAT	6	14	
S7	d	d	d	d	d	d		7	15	
S8			TRACK	-	MIN		SEC		8	▶

Pin Assignment

PIN No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Segment Name	F1	F1	NP	G8	G7	G6	G5	G4	G3	G2									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	F1	F1	NP	G8	G7	G6	G5	G4	G3	G2									

IC106 LC97000P-288 (D/A converter)

No.	Symbol	I/O	Function description	No.	Symbol	I/O	Function description
1	L-CH	O	DAC CH-1 output pin	14	EMPH2	I	De-emphasis set pin
2	VRH	R	Reference voltage "H" input pin	15	EMPH1	I	De-emphasis set pin
3	AVDD	P	Analog system power supply pin	16	D/N	I	Normal/double speed switch pin
4	DVDD	P	Digital system power supply pin	17	SOC2	I	Input source select pin
5	BCLK	I	Bit CLOCK pin	18	SOC1	I	Input source select pin
6	DATA	I	Digital audio data input pin Input in bit serial from MSB	19	MODE	I	Operation mode set pin
7	LRCK	I	LR CLOCK input pin LRCK = "H" CH1 LRCK = "L" CH2	20	TEST	I	Test pin (normally "L")
8	TEST	I	Test pin (normally "L")	21	TEST	I	Test pin (normally "L")
9	ATT	I	Attenuation data input pin Input in bit serial from LSB	22	DGND	P	Digital system GROUND pin
10	SHIFT	I	Attenuation data shift CLOCK input pin	23	CLKOUT	O	CLOCK output pin At 392Fs : 1/2 XOUT At 384Fs, 448Fs, 512Fs : 1/4 XOUT
11	LATCH	I	Attenuation data latch CLOCK input pin	24	XIN	I	Crystal oscillation input pin.
12	INITB	I	Initializing signal input pin (normally "H")	25	XOUT	O	Crystal oscillation output pin.
13	TEST	I	Test pin (normally "L")	26	AGND	P	Analog system GROUND pin.
				27	VRL	R	Reference voltage "L" input pin.
				28	R-CH	O	DAC CH-2 output pin

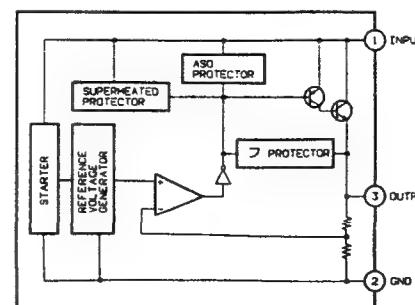
IC BLOCK DIAGRAM (CD)

IC301 μ PD75212ACW-256 (4 Bit Micro Processor)

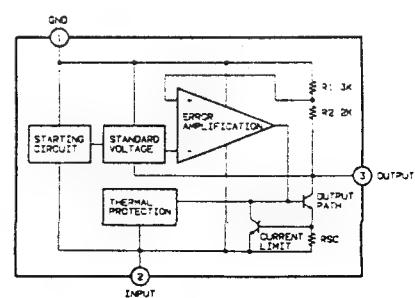
No	Pin name	Description
1	S3	FL Segment Signal Output & Key scan output
2	S2	FL Segment Signal Output & Key scan output
3	S1	FL Segment Signal Output & Key scan output
4	S0	FL Segment Signal Output & Key scan output
5	P CHK	Power detect (ON/OFF)
6	CQCK	LC7860KA interface (clock)
7	COIN	LC7860KA interface (SU8Q data)
8	SQOUT	LC7860KA interface (command data)
9	WRQ	LC7860KA interface (SU8Q trigger)
10	IR	Remote control signal input
11	DRF	Detected for RF signal (ON/OFF)
12	FUNCT	Function input (CD Time = LOW)
13	RWC	LC7860KA interface (data latch)
14	OPEN	Tray drive motor (SLED motor) control
15	CLOSE	Tray drive motor (SLED motor) control
16	LDON	LASER ON/OFF OUTPUT
17	LIMIT SW	PICK Limit SW input (ON/OFF)
18	OPEN SW	Open SW input (ON/OFF)
19	AF OUT	Auto function signal output (for DECK and AMP)
20	C COPY	Computer copy signal output (for DECK) High
21	KEY0	KEY input
22	KEY1	KEY input
23	KEY2	KEY input
24	KEY3	KEY input
25	TIME LED	Time edit LED display (Disp. ON/OFF)
26	DUB LED	Dubbing LED display (Disp. ON/OFF)
27	FADE LED	FADE LED Lighting (Disp. ON/OFF)
28	PD PORT	Not used
29	P CON	Power control (PW ON/OFF)
30	X1	Clock generator input (4.19MHz)
31	X2	Clock generator output (19MHz)
32	Vss	GND
33	XT1	Not used (GND)

No	Pin name	Description
34	XT2	Not used (Open)
35	DUB IN	Dubbing input (from DECK)
36	C STOP	Call Stop Signal input
37	CD FADE	Timer play signal input (from TUNER)
38	CD CONT	Timer play signal input (from TUNER)
39	RESET	Reset input
40	T0	FL Digit Signal Output
41	T1	FL Digit Signal Output
42	T2	FL Digit Signal Output
43	T3	FL Digit Signal Output
44	T4	FL Digit Signal Output
45	T5	FL Digit Signal Output
46	T6	FL Digit Signal Output
47	T7	FL Digit Signal Output
48	T8	FL Digit Signal Output
49	T9	FL Digit Signal Output
50	LATCH	DAC Control Output (Latch)
51	SHIFT	DAC Control Output (Clock)
52	ATT	DAC Control Output (Data)
53	A MUTE	Analog Mute Signal
54	S11	
55	S10	
56	VLOAD	Power source for pull down of FL display terminal
57	VPRE	Power source for output buffer of FL display terminal
58	S9	FL Segment Signal & Key Scan output
59	S8	FL Segment Signal & Key Scan output
60	S7	FL Segment Signal & Key Scan output
61	S6	FL Segment Signal & Key Scan output
62	S5	FL Segment Signal & Key Scan output
63	S4	FL Segment Signal & Key Scan output
64	VDD	Power (+5V)

IC151 M5278D05 (3 Terminal Voltage Regulator)



IC152 AN79N05 (3 Terminal Voltage Regulator)



TAPE DECK UNIT (CR-WG5)

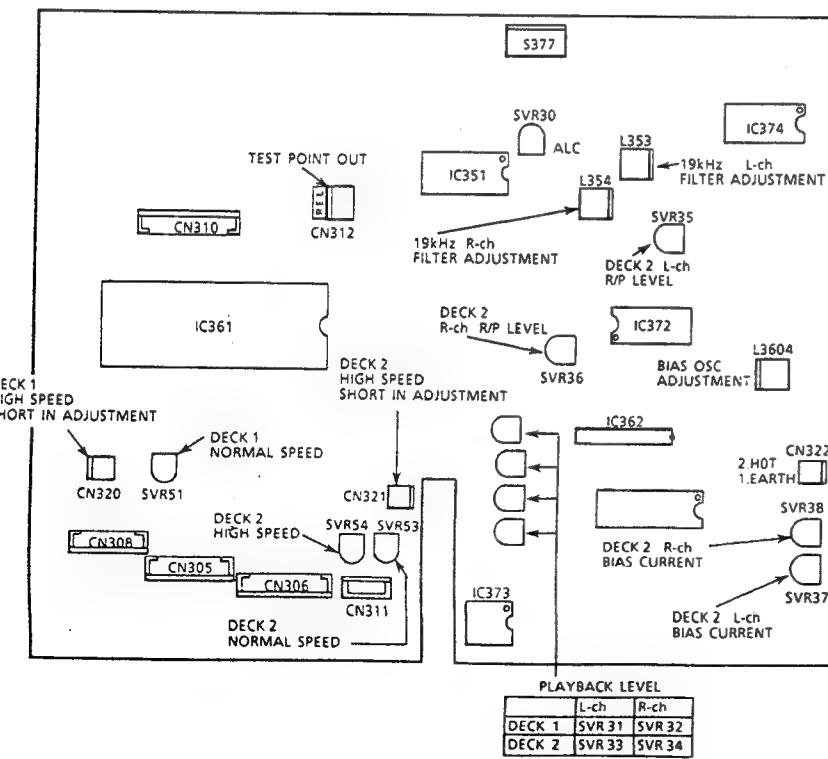
TAPE DECK ADJUSTMENT 1. AMPLIFIER ADJUSTMENT

	ITEM	TEST TAPE	INPUT	DOLBY	OUTPUT	ADJUST POINT	REMARKS
1	Head Azimuth	VTT738	---	---	TP OUT CN312	Azimuth Screw	Adjust screw so that 10kHz output become maximum. (FWD/REV)
2	Playback Level	TCC130	---	OFF	TP OUT CN312 SVR31,32 (DECK A) SVR33,34 (DECK B)	SVR31,32 (DECK A) SVR33,34 (DECK B)	Adjust SVR so that TAPE OUT output become 0.775V.
3	OSC	AC224	107kHz	OFF	TP OSC CN322	L3604	Beat Cancel SW1 : Adjust 107 kHz Beat Cancel SW2 : Confirm 103 ± 2 kHz
4	19kHz Filter	AC224	$19\text{kHz} \pm 10\text{Hz}$ (-5dB)	OFF	TP OUT CN312	L353 (L-ch) L354 (R-ch)	Set frequency 400Hz output to 0dB. Adjust SVR so that 19kHz output become -30dB.
5	Rec/Play Frequency	AC224	1kHz (-25dB) 10kHz (-25dB)	ON	TP OUT CN312	SVR37 (L-ch) SVR38 (R-ch)	Set frequency 1kHz output to 0dB. Adjust SVR so that 10kHz output become +1dB.
6	Rec/Play Level	AC224	1kHz (-5dB)	OFF	TP OUT CN312	SVR35 (L-ch) SVR36 (R-ch)	Adjust to obtain same output of 1kHz and 10kHz.

Note.

1. Head azimuth : Be sure both channels (L and R) are the same level and phase. [Both mechanism (DECK 1 and DECK 2)]
2. During adjustment measurement Beat cancel SW is at 1 condition fundamentally, confirm R/P frequency characteristic dolby effect also by 2 condition.

2. PARTS LOCATION



TAPE DECK ADJUSTMENT & TORQUE

3. TAPE SPEED ADJUSTMENT

Note : ① Operate the Mechanism with the normal speed.
 ② Begin from the high speed in Motor speed adjustment.

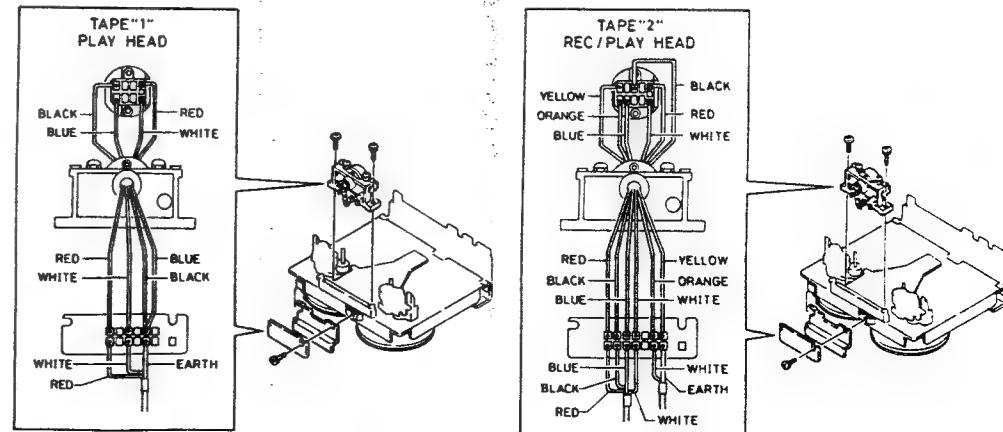
- 1) Set the test tape TCW-211 (or equivalent) to both mechanism (Deck 1/Deck 2). Adjustment should be made at the center portion (FWD Play) on the tape.
- 2) Play the mechanism in FWD Play.
- 3) Short the high speed test pin to the high speed portion. (by the clip.)
- 4) Confirm the indication of the tape speed counter in Deck 1. Adjust the tape speed in Deck 2 so as to match in Deck 1. (It is not SVR : high speed in Deck 1.) Confirm so that a frequency counter reading of high speed become $3000\text{Hz} \pm 10\%$ in Deck 1.
- 5) Adjust SVR54 so that a frequency counter reading become $\pm 5\text{Hz}$ in Deck 2 at the FWD Play and near tape center than in Deck 1.
 Example - Deck 1 : $3000\text{Hz} \rightarrow$ Deck 2 : $3000\text{Hz} \pm 5\text{Hz}$
- 6) Remove the short by the clip, open the high speed test pin. (Normal speed)
- 7) Stop the mechanism drive.
- 8) Set the test tape MTT-111 (or equivalent) to both mechanism (Deck 1/Deck 2). Adjustment should be made at the center portion (FWD Play) on the tape.
- 9) Play the Mechanism (FWD Play).
- 10) Adjust SVR51 so that a frequency counter reading become $3000\text{Hz} \pm 5\text{Hz}$ in Deck 1 at the FWD Play and near the tape center.
- 11) Adjust SVR53 so that a frequency counter reading become $3000\text{Hz} \pm 5\text{Hz}$ in Deck 2 at the FWD Play and near the tape center.
- 12) Stop the mechanism drive.

4. CHECKING THE MECHANISM TORQUES

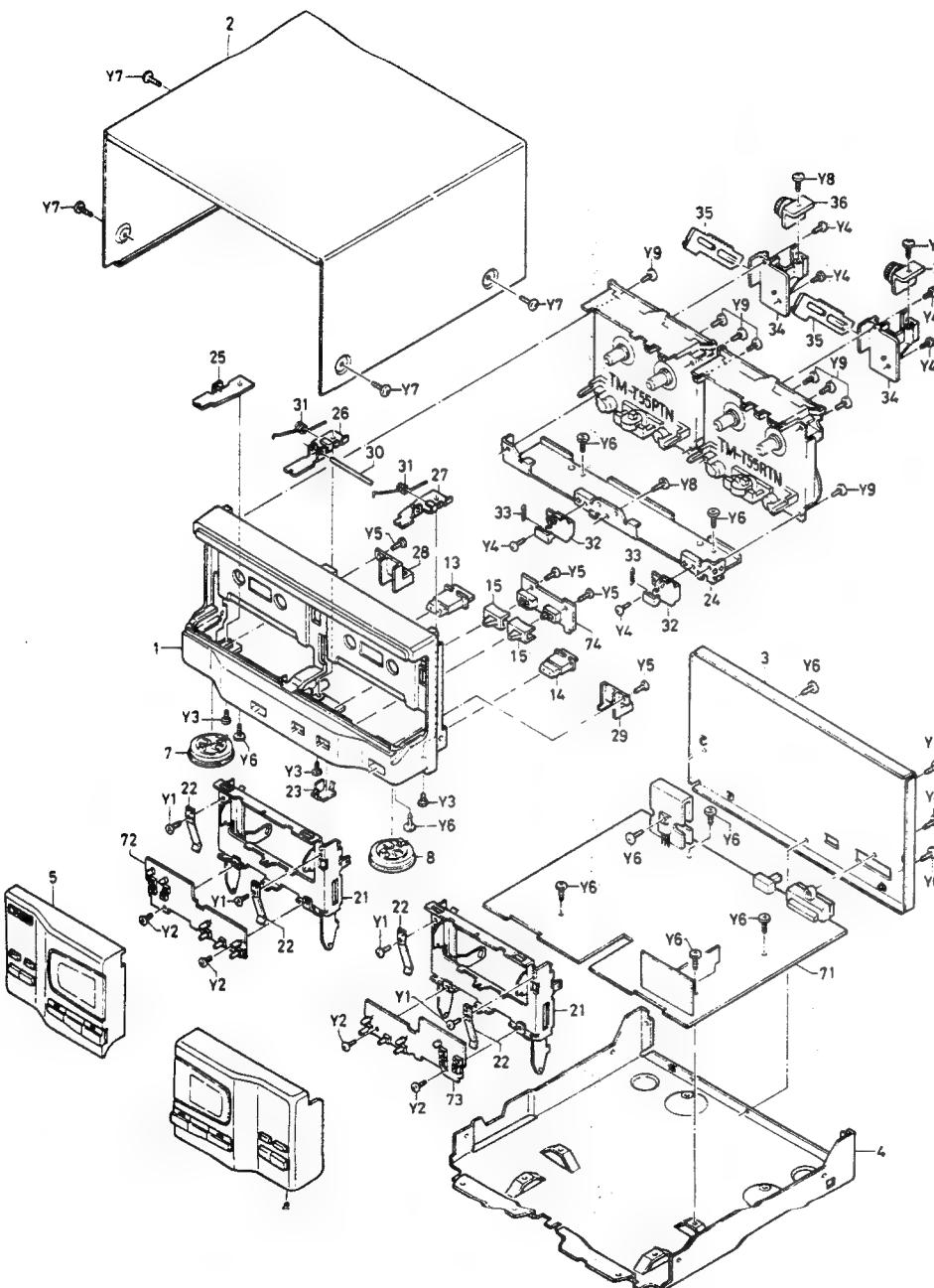
Note : Clean the head, capstan and pinch roller before making any measurement.

ITEM	TAKE-UP TORQUE	BACK TENSION	PULLEY TENSION
Test cassette	PLAY (FWD) : TW2111A PLAY (REW) : TW2121A F.FWD/REW : TW2231	PLAY (FWD) : TW2111A PLAY (REW) : TW2121A	Driving power cassette : PLAY (FWD) : TW-2412 PLAY (REW) : TW2422
PLAY	30~60gr.cm	2.0~5.0gr.cm	more than 80gr
F.FWD	55~140gr.cm	-----	-----
REW	55~140gr.cm	-----	-----

5. HEAD REPLACEMENT



PARTS LIST (TAPE DECK) -



EXPLODED VIEW (TAPE DECK)

CABINET & CHASSIS (CR-MGS)

REF.NO.	PART NO.	DESCRIPTION
1	614 236 2396	ASSY.PANEL.FRONT(B)
	614 236 2389	ASSY.PANEL.FRONT(W)
2	614 230 9285	ASSY.CABINET(B)
	614 236 1979	ASSY.CABINET(W)
3	614 236 1481	PANEL.REAR
	614 227 5665	ASSY.CABINET.BOTTOM
5	614 236 2006	ASSY.COVER.DECK 1(B)
	614 236 1993	ASSY.COVER.DECK 1(W)
6	614 236 2020	ASSY.COVER.DECK 2(B)
	614 236 2013	ASSY.COVER.DECK 2(W)
7	614 234 7218	ASSY.FOOT.FRONT-L
	614 234 7225	ASSY.FOOT.FRONT-R
13	614 236 1740	BUTTON.EJECT.DECK 1(W)
	614 227 1704	BUTTON.EJECT.DECK 1(B)
14	614 236 1757	BUTTON.EJECT.DECK 2(W)
	614 227 1711	BUTTON.EJECT.DECK 2(B)
15	614 236 1627	KNOB.SLIDE.MODE.DOLBY(W)
	614 227 1575	KNOB.SLIDE.MODE.DOLBY(B)
21	614 227 1049	ASSY.LID.CASSETTE
	614 227 2116	SPRING.PLATE.TAPE COMP
23	614 227 1940	STOPPER.SHFT
	614 227 1797	BRACKET.M.MECHA
25	614 227 5702	ASSY.BRACKET.M.LID (LEFT)
	614 227 1803	BRACKET.M.LID (CENTER)
27	614 227 5719	ASSY.BRACKET.M.LID (RIGHT)
	614 227 1919	OUNT.M.LEAD.WIRE DECK1
29	614 227 1926	OUNT.M.LEAD.WIRE DECK2
	614 227 1964	SHAFT.LID (CENTER)
31	614 227 2145	SPRING.WIRE.LID OPEN
	614 227 5726	ASSY.LEVER.EJECT
33	614 227 2084	SPRING.TENS.EJECT
	614 227 4231	OUNT.M.DUMPER
35	614 227 2077	SLIDE.DUMPER
	614 069 0378	GEAR ASSY.DUMPER
36	614 125 6443	CUSHION.WIRE FIX

DECK MAIN P.C.B. BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
71	614 237 0056	ASSY,PCB,DECK MAIN
C3613	403 080 6106	POLYPRO 0.01U J 100V
C3901	403 038 4505	ELECT 1000U M 6.3V
C3999	403 200 0304	ELECT 3500U M 35V
CN301	614 017 2546	PLUG,3P,FOR P HEAD
CN302	614 017 2560	PLUG,5P,FOR R/P HEAD
CN303	614 017 2539	PLUG,2P,FOR E HEAD
CN304	614 227 2978	SOCKET,1SP,TO AMP. UNIT
CN305	614 017 2614	PLUG,10P,FOR DECK 1 MODE SW
CN306	614 017 2621	PLUG,1P,FOR DECK 2 MODE SW
CN307	614 017 2553	PLUG,4P,FOR MODE SW
CN308	614 017 2607	PLUG,9P,FOR DECK 1 MECHA
CN309	614 017 2119	PLUG,4P,FOR DECK 1 MOTOR
CN310	614 017 2638	PLUG,12P,FOR DECK 2 MECHA
CN311	614 017 2119	PLUG,4P,FOR DECK 2 METER
CN312	614 016 3858	PLUG,3P,FOR SIGNAL TEST POINT
CN320	614 016 4084	PLUG,2P,FOR HI SPEED TEST POINT
CN321	614 016 4084	PLUG,2P,FOR HI SPEED TEST POINT
CN322	614 016 4084	PLUG,2P,FOR E HEAD TEST POINT

FIXING PARTS (CR-MG5)

REF. NO.	PART NO.	DESCRIPTION
Y1	411 129 0206	SCR S-TPG PAN 2X3
Y2	411 028 5609	SCR S-TPG PAN 2.6X4
Y3	411 028 6200	SCR S-TPG PAN 2.6X6
Y4	411 021 2704	SCR S-TPG BIN 2.6X6
Y5	411 021 1806	SCR S-TPG BIN 2.6X10
Y6	411 021 6405	SCR S-TPG BIN 3X8
Y7	411 021 6603	SCR S-TPG BIN 3X8(B)
	411 098 4205	SCR S-TPG BIN 3X8(W)
Y8	411 021 3503	SCR S-TPG BIN 3X10
Y9	411 021 6603	SCR S-TPG BIN 3X8

ELECTRICAL PARTS (CCR-HGS)

REF. NO.	PART NO.	DESCRIPTION
CN351	614 227 0868	ASSY,CONNECTOR-S.3P,P HEAD LEAD
CN352	614 227 0875	ASSY,CONNECTOR-S.5SP,R/P HEAD LEAD
CN353	614 227 0882	ASSY,CONNECTOR-S.2P,E HEAD LEAD
CN358	614 229 4543	ASSY,CONNECTOR-S.9P,DECK 1 MECHA LEAD
CN359	614 227 0899	ASSY,CONNECTOR-S.4P,DECK 1 MOTER LEAD
CN360	614 229 4550	ASSY,CONNECTOR-S.12P,DECK 2 MECHA LEAD
CN361	614 227 0905	ASSY,CONNECTOR-S.4P,DECK 2 MOTER LEAD

PARTS LIST (TAPE DECK)

REF. NO.	PART NO.	DESCRIPTION
Q301	405 004 5103	TR 2SA608-G-SPA
Q302	405 007 6701	TR 2SB598-F-NP
Q303	405 007 6701	TR 2SB598-F-NP
Q304	405 007 6701	TR 2SB598-F-NP
Q305	405 004 5103	TR 2SA608-G-SPA
Q306	405 007 6701	TR 2SB598-F-NP
Q307	405 007 6701	TR 2SB598-F-NP
Q308	405 007 6701	TR 2SB598-F-NP
Q332	405 000 3400	TR DTC114TS
Q333	405 018 0200	TR 2SC3331-U
Q334	405 018 0200	TR 2SC3331-U
Q335	405 000 3806	TR DTC114YS
Q336	405 000 3400	TR DTC114TS
Q337	405 075 8300	TR DTC124TS
Q338	405 000 3400	TR DTC114TS
Q339	405 000 0508	TR DTA114ES
Q340	405 000 3400	TR DTC114TS
Q341	405 000 3400	TR DTC114TS
Q342	405 000 3400	TR DTC114TS
Q343	405 000 3400	TR DTC114TS
Q344	405 000 3806	TR DTC114YS
Q345	405 000 3400	TR DTC114TS
Q346	405 000 3400	TR DTC114TS
Q347	405 000 3400	TR DTC114TS
Q348	405 000 3806	TR DTC114YS
Q349	405 000 3806	TR DTC114YS
Q350	405 004 5103	TR 2SA608-G-SPA
Q351	405 017 9709	TR 2SC3330-U
Q352	405 017 9709	TR 2SC3330-U
Q353	405 017 9709	TR 2SC3330-U
Q354	405 017 9709	TR 2SC3330-U
Q356	405 000 0508	TR DTA114ES
Q357	405 018 5403	TR 2SC349S
Q358	405 000 0508	TR DTA114ES
Q361	405 000 0508	TR DTA114ES
Q362	405 025 0200	TR 2SD734-G
Q363	405 000 3806	TR DTC114YS
Q364	405 000 3400	TR DTC114TS
Q365	405 000 3400	TR DTC114TS
Q366	405 000 3400	TR DTC114TS
Q368	405 000 3400	TR DTC114TS
Q370	405 000 3400	TR DTC114TS
Q372	405 075 8300	TR DTC124TS
Q373	405 075 8300	TR DTC124TS
Q374	405 033 6805	TR 2SD1468S-S
Q382	405 075 8300	TR DTC124TS
Q383	405 075 8300	TR DTC124TS
Q384	405 033 6805	TR 2SD1468S-S
Q389	405 035 7107	TR 2SD1913-R
Q391	405 035 7107	TR 2SD1913-R
Q392	405 035 7107	TR 2SD1913-R
Q393	405 023 5306	TR 2SD0400-F
Q394	405 023 5306	TR 2SD0400-F
Q395	405 017 9709	TR 2SC3330-U
Q396	405 017 9709	TR 2SC3330-U
Q397	405 000 3400	TR DTC114TS
Q398	405 000 3806	TR DTC114YS
R3615	△402 052 1101	FUSIBLE RES 3.3 J-1/4W
R3901	△402 052 1101	FUSIBLE RES 3.3 J-1/4W
R3902	401 068 6209	OXIDE-MT 5.6 JA 2W
R3903	401 068 6209	OXIDE-MT 5.6 JA 2W
R3908	△402 051 7708	FUSIBLE RES 47 J-1/4W
R3992	△402 051 7708	FUSIBLE RES 47 J-1/4W
R3994	401 060 4104	OXIDE-MT 2.2K JA 1W
R3996	401 058 2501	OXIDE-MT 100 JA 1W
RA361	614 217 1356	RESISTOR 10K X10
RA362	614 217 1387	RESISTOR 10K X13

PARTS LIST (TAPE DECK)

REF. NO.	PART NO.	DESCRIPTION
S377	614 012 4316	SWITCH, FOR BEAT CANCEL
SVR30	614 226 3891	POTENTIOMETER, 10K(B), ALC ADJ
SVR31	614 226 3891	POTENTIOMETER, 10K(B), PLAY GAIN
SVR32	614 226 3891	ADJ. DECK, 1(L-CH)
SVR33	614 226 3891	POTENTIOMETER, 10K(B), PLAY GAIN
SVR34	614 226 3891	ADJ. DECK, 2(L-CH)
SVR35	614 226 3891	POTENTIOMETER, 10K(B), REC GAIN
SVR36	614 226 3891	ADJ. DECK, 2(L-CH)
SVR37	614 226 3952	POTENTIOMETER, 100K(B), BIAS ADJ.
SVR38	614 226 3952	DECK, 2(L-CH)
SVR39	614 226 3853	POTENTIOMETER, 100K(B), BIAS ADJ.
SVR51	614 226 3853	DECK, 2(R-CH)
SVR53	614 226 3853	POTENTIOMETER, 2.2K(B), TAPE SPEED
SVR54	614 226 3853	ADJ. DECK 1
X361	614 215 5523	POTENTIOMETER, 2.2K(B), TAPE SPEED
		ADJ. DECK 2(HIGH)
		POTENTIOMETER, 2.2K(B), TAPE SPEED
		ADJ. DECK 2(NORMAL)
		RESONATOR, 4.19MHz

DOLBY-MODE SWITCH P.C.B. BOARD ASSY

REF. NO.	PART NO.	DESCRIPTION
74	614 237 0650	ASSY, PCB, DOLBY SW
CN357	614 230 8165	ASSY, CONNECTOR-S.4P, TO MAIN PCB
S375	614 227 2343	SWITCH, SLIDE, DOLBY
S376	614 227 2350	SWITCH, SLIDE, REV MODE

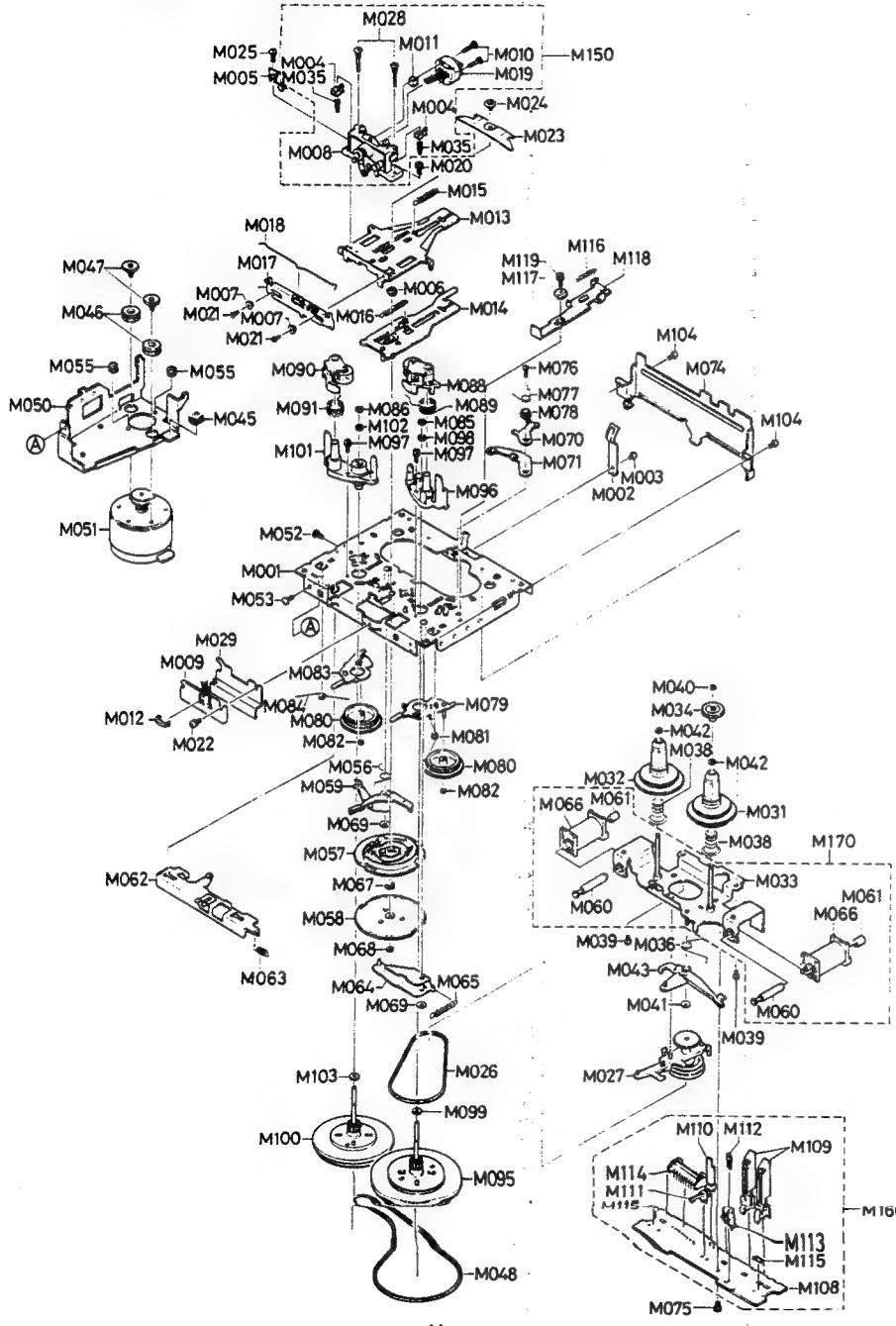
TAPE DECK 1 OPERATION SWITCH P.C.B. BOARD ASSY

REF. NO.	PART NO.	DESCRIPTION
72	614 237 0063	ASSY, PCB, MECHA SW FOR DECK 1
CN355	614 227 0844	ASSY, CONNECTOR-S.10P, MODE SW FOR DECK 1
D331	408 014 3701	LED SLZ-338A-04-AB-T1, REV
D332	408 014 3701	LED SLZ-338A-04-AB-T1, FWD
D333	407 109 4104	LED SLP-181C-51-B, HI DUB.
D334	407 109 4104	LED SLP-181C-51-B, NOR DUB.
D381	407 012 4406	DIODE 1SS133
D382	407 012 4406	DIODE 1SS133
D383	407 012 4406	DIODE 1SS133
D384	407 012 4406	DIODE 1SS133
D385	407 012 4406	DIODE 1SS133
D386	407 012 4406	DIODE 1SS133
D387	407 012 4406	DIODE 1SS133
D388	407 012 4406	DIODE 1SS133
D389	407 012 4406	DIODE 1SS133
D390	407 012 4406	DIODE 1SS133
S361	614 220 5594	SWITCH, TACT, REV
S362	614 220 5532	SWITCH, TACT, REV
S363	614 220 5532	SWITCH, TACT, STOP
S364	614 220 5532	SWITCH, TACT, FWD
S365	614 220 5594	SWITCH, TACT, FF
S366	614 220 5594	SWITCH, TACT, HI DUB.
S367	614 220 5594	SWITCH, TACT, NOR DUB.

TAPE DECK 2 OPERATION SWITCH P.C.B. BOARD ASSY

REF. NO.	PART NO.	DESCRIPTION
73	614 237 0070	ASSY, PCB, MECHA SW FOR DECK 2
CN356	614 227 0851	ASSY, CONNECTOR-S.11P, MODE SW FOR DECK 2
D335	408 014 3701	LED SLZ-338A-04-AB-T1, REV
D336	408 014 3701	LED SLZ-338A-04-AB-T1, FWD
D337	407 109 4104	LED SLP-181C-51-B, REC/PAUSE
D371	407 012 4406	DIODE 1SS133
D372	407 012 4406	DIODE 1SS133
D373	407 012 4406	DIODE 1SS133

EXPLODED VIEW (TAPE MECHANISM "DECK 1")



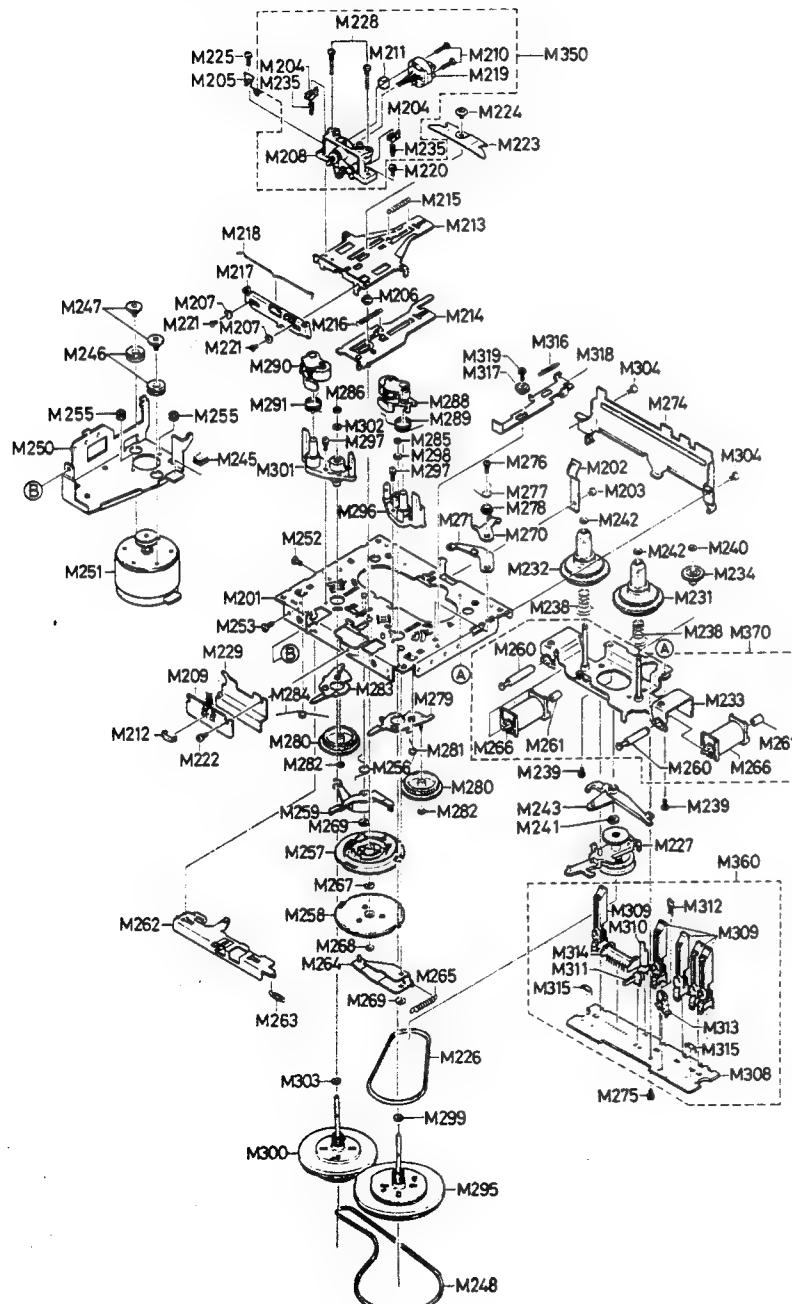
PARTS LIST (TAPE MECHANISM "DECK-1")

DECK-1 MECHANISM (TN-T55PTN)

REF. NO.	PART NO.	DESCRIPTION
M001	614 229 1832	ASSY.CHASSIS
M002	614 229 1405	PLATE.PACK SPRING
M003	412 027 2604	SPECIAL SCREW.C TAPP M2X3
M004	614 212 4451	GUIDE.TAPE
M005	614 229 1481	SPRING.WIRE.CLUMP(V)
M006	614 212 5991	COLLAR.PANEL
M007	614 206 3118	COLLAR.CHP LEVER
M008	614 229 1366	ASSY.BRACKET-E.HEAD BASE
M009	614 206 3408	PCB.RELAY BOARD
M010	412 041 6505	SPECIAL SCREW.HEAD COLLAR
M011	614 206 2937	SPACER.HEAD
M012	614 206 2975	FIXER.WIRE CLAMP
M013	614 206 3248	SLIDE.HEAD PANEL (A)
M014	614 206 2821	ASSY.SLIDE.HEAD PANEL (B)
M015	614 206 3286	SPRING.TENS.RC
M016	614 206 3293	SPRING.TENS.PANEL
M017	614 206 3194	LEVER.CHP
M018	614 214 0970	SPRING.WIRE.PINCH ROLLER
M019	614 227 2169	HEAD.PLAY
M020	412 032 2707	SPECIAL SCREW.TANS M2X5
M021	412 032 2806	SPECIAL SCREW.H17X3 (FOR CAMERA)
M022	412 032 2509	SPECIAL SCREW.S TAPP TAMS M2X5
M023	614 215 7428	SPRING.PLATE.PLATE
M024	412 032 3001	SPECIAL SCREW.CUPS TAPP M2X5
M025	412 032 4800	SPECIAL SCREW.BINS M2X5
M026	614 206 4849	BELT.FLAT.RF
M027	614 229 1849	ASSY.PULLEY.RF CLUTCH
M028	412 034 0909	SPECIAL SCREW.GUIDE
M029	614 229 1412	PLATE.SHIELD
M031	614 206 4399	ASSY.REEL.T(F)
M032	614 207 2158	ASSY.REEL.T(R)
M033	614 206 4382	ASSY.BRACKET-H.REEL BASE
M034	614 206 4658	GEAR.FF
M035	614 212 4529	SPRING.COMP.GUIDE
M036	614 206 5099	SPRING.WIRE.FR TRIGGER ARM
M038	614 206 3309	SPRING.COMP.B.TCR
M039	412 026 2003	SPECIAL SCREW.C TAPPING M2X4
M040	412 013 4904	SPECIAL WASHER.P CUT 1.2X3X0.25
M041	412 013 7608	SPECIAL WASHER.P CUT 2.1X5X0.5
M042	412 032 3902	SPECIAL WASHER.HL CUT 1.4X3.2X0.4
M043	614 206 3149	LEVER.RF TRIGGER ARM
M045	614 206 2951	CUSHION.MAT
M046	614 206 2944	CUSHION.RUBBER.MOTOR
M047	412 032 4008	SPECIAL SCREW.MOTOR COLLAR
M048	614 229 1368	BELT.FLAT.MAIN
M050	614 229 1290	BRACKET-M.MOTOR
M051	614 229 1818	ASSY.MOTOR.EG530YD-2BH
M052	412 026 1402	SPECIAL SCREW.C TAPP M2X3
M053	412 043 3601	SPECIAL SCREW.CAMERA M2X3.5
M055	614 229 1326	CUSHION.RUBBER.MOTOR
M056	614 206 3347	SPRING.WIRE.M TRIGGER ARM
M057	614 206 3002	GEAR.M
M058	614 206 3019	GEAR.RF CAM
M059	614 206 3170	LEVER.H TRIGGER ARM
M060	614 206 2906	SHAFT.PLUNGER
M061	614 206 4627	HOLDER.PLUNGER
M062	614 229 1856	ASSY.SLIDE.CH SLIDE LEVER
M063	614 206 3279	SPRING.TENS.CH SLIDE LEVER
M064	614 206 2807	ASSY.LEVER.P KICK
M065	614 215 7404	SPRING.TENS.PK LEVER
M066	614 206 3491	MAGNETIC COIL.SOLENOID
M067	412 032 3100	SPECIAL WASHER.E RING D-0
M068	412 032 3209	SPECIAL WASHER.HL CUT 1.5X3.5X0.5
M069	412 032 3308	SPECIAL WASHER.HL CUT 2.1X5X0.4
M070	614 229 1382	LEVER.E STOPPER A
M071	614 229 1399	LEVER.E STOPPER B
M074	614 229 1443	SLIDE.SW PROTECTOR

REF. NO.	PART NO.	DESCRIPTION
M075	412 032 2509	SPECIAL SCREW.S TAPP TAMS M2X5
M076	412 027 5805	SPECIAL SCREW.CAMERA S TAPP M2X5
M077	614 229 1498	SPRING.WIRE.E STOPPER
M078	614 206 3095	COLLAR.E STOPPER
M079	614 207 2882	ASSY.LEVER.T GEAR ARM (F)
M080	614 229 1344	GEAR.T(A)
M081	614 229 1504	SPRING.WIRE.TG ARM (F)
M082	412 013 4904	SPECIAL WASHER.P CUT 1.2X3X0.25
M083	614 206 4467	ASSY.LEVER.T GEAR ARM (R)
M084	614 229 1511	SPRING.WIRE.TG ARM (R)
M085	412 032 3506	SPECIAL WASHER.NYLON 2.1X3.5X0.5
M086	412 027 9803	SPECIAL WASHER.NYLON 1.8X3.5X0.5
M088	614 212 7469	ASSY.PINCH ROLLER.ARM(F)
M089	614 206 3354	SPRING.WIRE.P ARM (F)
M090	614 212 7476	ASSY.PINCH ROLLER.ARM(R)
M091	614 206 3361	SPRING.WIRE.P ARM (R)
M095	614 234 0226	ASSY.FLYWHEEL.(F)
M096	614 206 2722	ASSY.BRACKET-E.FL METAL(F)
M097	412 032 3605	SPECIAL SCREW.S TAPP M2X6
M098	412 032 3704	SPECIAL WASHER.HL CUT 1.8X4X0.5
M099	412 039 2106	SPECIAL WASHER.HL 2.3X3.8X0.3
M100	614 234 0219	ASSY.FLYWHEEL.(R)
M101	614 214 0888	ASSY.BRACKET-E.FL METAL(R)
M102	412 032 5401	SPECIAL WASHER.
M103	612 034 0800	HL CUT 1.5X3.5X0.5
M104	612 026 1402	SPECIAL WASHER.HL 2.1X3.5X0.3
M108	614 229 1528	PCB.MECHANISM
M109	614 206 3338	SWITCH.LEAF.MTS-10250MVJO
M110	614 224 9246	SWITCH.LEAF.MSW-1699CF
M111	614 224 9253	SWITCH.LEAF.MSW-17944MVDO
M112	409 128 5209	IC LB9051A.HALL
M113	614 206 2968	HOLDER.IC PROTECTOR
M114	614 017 3888	PLUG.PP
M115	407 004 9105	DIODE DSF10C.SOLENOIDE COIL
M116	614 229 1450	SPRING.TENS.E LEVER
M117	614 206 3101	COLLAR.E KICK LEVER
M118	614 229 1429	SLIDE.E SLIDE LEVER
M119	412 032 2509	SPECIAL SCREW.S TAPP TAMS M2X5
M150	614 229 1764	ASSY.HEAD.PLAY.P-HEAD BLOCK.
M160	614 229 1771	FOR SERVICE
M170	614 207 6231	ASSY.PCB.MECHANISM.FOR SERVICE
		ASSY.BRACKET-H.REEL-BASE.
		FOR SERVICE

EXPLODED VIEW (TAPE MECHANISM "DECK 2")



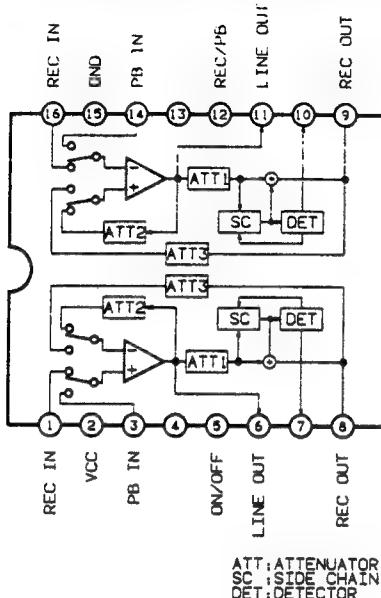
PARTS LIST (TAPE MECHANISM "DECK-2")

DECK-2 MECHANISM (TH-T55RTN)

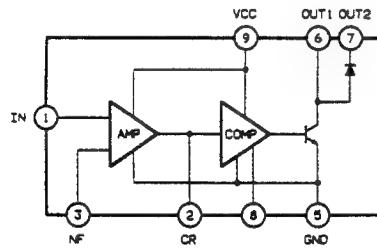
REF. NO.	PART NO.	DESCRIPTION
M201	614 229 1832	ASSY.CHASSIS
M202	614 229 1405	PLATE.PACK
M203	412 027 2606	SPECIAL SCREW.C TAPP M2X3
M204	614 212 4451	GUIDE.TAPE
M205	614 229 1481	SPRING.WIRE.CLUMP(V)
M206	614 212 5991	COLLAR.PANEL
M207	614 206 3118	COLLAR.CHP LEVER
M208	614 229 1566	ASSY.BRACKET-E.HEAD BASE
M209	614 206 1954	PCB.RELAY BOARD
M210	412 041 6505	SPECIAL SCREW.HEAD COLLAR
M211	614 206 2937	SPACER.HEAD
M212	614 206 2975	FIXER.WIRE CLAMP
M213	614 206 3248	SLIDE.HEAD PANEL (A)
M214	614 206 2821	ASSY.SLIDE.HEAD PANEL (B)
M215	614 206 3286	SPRING.TENS.RC
M216	614 206 5293	SPRING.TENS.PANEL
M217	614 206 3194	LEVER.CHP
M218	614 214 0970	SPRING.WIRE.PINCH ROLLER
M219	614 227 2152	HEAD.R/P
M220	412 032 2707	SPECIAL SCREW.TAMS M2X5
M221	412 032 2806	SPECIAL SCREW.M1.7X3(FOR CAMERA)
M222	412 032 2509	SPECIAL SCREW.S TAPP TAMS M2X5
M223	614 215 7428	SPRING.PLATE.PANEL
M224	412 032 3001	SPECIAL SCREW.CUPS TAPP M2X5
M225	412 032 4800	SPECIAL SCREW.BIND M2X5
M226	614 206 4849	BELT.FLAT.RF
M227	614 229 1849	ASSY.PULLEY.RF CLUTCH
M228	412 034 0909	SPECIAL SCREW.GUIDE
M229	614 229 1412	PLATE.SHIELD
M231	614 206 4399	ASSY.REEL.T(F)
M232	614 207 2158	ASSY.REEL.T(R)
M233	614 206 4382	ASSY.BRACKET-M.REEL BASE
M234	614 206 4658	GEAR.FF
M235	614 212 4529	SPRING.COMP.GUIDE
M238	614 206 3309	SPRING.COMP.B.T(R)
M239	412 026 2003	SPECIAL SCREW.C TAPPING M2X4
M240	412 013 4904	SPECIAL SCREW.P CUT 1.2X3X0.25
M241	412 013 7608	SPECIAL SCREW.P CUT 2.1X5X0.5
M242	412 032 3902	SPECIAL WASHER.
M243	614 206 3149	HL CUT 1.4X3.2X0.4
M245	614 206 2951	LEVER.RF TRIGGER ARM
M246	614 206 2944	CUSHION.MAT
M247	412 032 4008	CUSHION.RUBBER.MOTOR
M248	614 229 1368	SPECIAL SCREW.MOTOR COLLAR
M250	614 229 1290	BELT.FLAT.MAIN
M251	614 229 1818	BRACKET-M.MOTOR
M252	412 026 1402	ASSY.MOTOR-EG530YD-2B
M253	412 043 3601	SPECIAL SCREW.C TAPP M2X3
M255	614 229 1320	SPECIAL SCREW.CAMERA M2X3.5
M256	614 206 3347	CUSHION.RUBBER.MOTOR
M257	614 206 3002	SPRING.WIRE.M TRIGGER ARM
M258	614 206 3019	GEAR.M
M259	614 206 3170	GEAR.RF CAM
M260	614 206 2906	LEVER.M TRIGGER ARM
M261	614 206 4627	SHAFT.PLUNGER
M262	614 229 1856	HOLDER.PLUNGER
M264	614 206 2807	ASSY.SLIDE.CH SLIDE LEVER
M265	614 215 7404	ASSY.LEVER.P KICK
M266	614 206 3491	SPRING.TENS.PK LEVER
M267	412 032 3100	MAGNETIC COIL.SOLENOID
M268	412 032 3209	SPECIAL WASHER-E RING D2.0
M269	412 032 3308	SPECIAL WASHER.
M270	614 229 1382	HL CUT 1.55X3.5X0.5
M271	614 229 1399	SPECIAL SCREW.S TAPP TAMS M2X5
M274	614 229 1443	LEVER.E STOPPER A
M275	412 032 2509	LEVER.E STOPPER B
M276	614 229 1443	SLIDE.SW PROTECTOR
M277	412 027 5805	SPECIAL SCREW.CAMERA TAPP M2X5
M278	614 206 3095	SPRING.WIRE.E STOPPER
M279	614 207 2882	COLLAR.E STOPPER
M281	614 229 1344	ASSY.LEVER.T GEAR ARM (F)
M282	412 013 4904	SPRING.WIRE.TG ARM (F)
M283	614 206 4467	SPECIAL WASHER.P CUT 1.2X3X0.25
M284	614 229 1511	ASSY.LEVER.T GEAR ARM (R)
M285	412 032 3506	SPRING.WIRE.TG ARM (R)
M286	612 027 9803	SPECIAL WASHER.NYLON 2.1X3.5X0.5
M288	614 212 7469	ASSY.PINCH ROLLER.ARM(F)
M289	614 206 3354	SPRING.WIRE.P ARM (F)
M290	614 212 7476	ASSY.PINCH ROLLER.ARM(R)
M291	614 206 3361	SPRING.WIRE.P ARM (R)
M295	614 234 0226	ASSY.FLYWHEEL.(F)
M296	614 206 2722	ASSY.BRACKET-E.FL METAL(F)
M297	412 032 3605	SPECIAL SCREW.T APP M2X6
M298	412 032 3704	SPECIAL WASHER.HL CUT 1.8X4X0.5
M299	612 039 2106	SPECIAL WASHER.HL 2.3X3.8X0.3
M300	614 234 0219	ASSY.FLYWHEEL.(R)
M301	614 214 0888	ASSY.BRACKET-E.FL METAL(R)
M302	412 032 5401	SPECIAL WASHER.,
M303	412 034 0800	HL CUT 1.55X3.5X0.5
M304	412 206 1402	SPECIAL WASHER.HL 2.1X3.5X0.3
M308	614 229 1528	PBC.MECHANISM
M309	614 206 3538	SWITCH.LEAF.MSW-10250MV.TD
M310	614 224 9246	SWITCH.LEAF.MSW-1699CF
M311	614 224 9253	SWITCH.LEAF.MSW-17944MVDO
M312	409 128 5209	IC LB9051A.HALL
M313	314 206 2968	HOLDER.IC PROTECTOR
M314	614 017 3918	PLUG.9P
M315	407 004 9105	DIODE DSF10C.SOLENOID COIL
M316	614 229 1450	SPRING.TENS.E LEVER
M317	614 204 3101	COLLAR.E KICK LEVER
M318	614 229 1429	SLIDE.E SLIDE LEVER
M350	614 229 1955	SPECIAL SCREW.S TAPP TAMS M2X5
M360	614 233 9961	ASSY.HEAD.R/P.R/P-HEAD BLOCK, FOR SERVICE
M370	614 207 6231	ASSY.PCB.MECHANISM.FOR SERVICE
		ASSY.BRACKET-M.REEL-BASE, FOR SERVICE

IC BLOCK DIAGRAM (TAPE DECK)

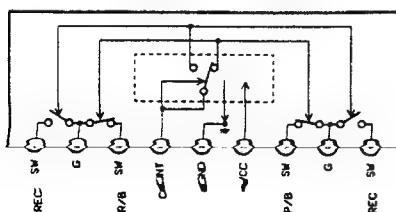
IC351 CXA1100P (Dolby-B Noise Reduction System)



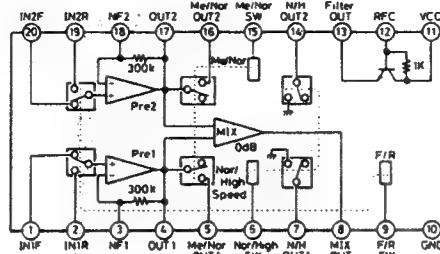
IC362 LA2000 (Audio Level Sensor)



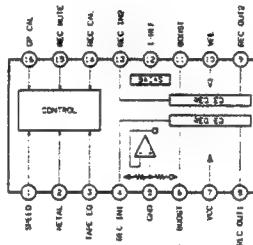
IC363 BA3126N (2-ch Head Switch for Radio Cassette)



IC371 LA3246 (Pre-Amplifier Electrical SW)



IC372 CXA1398P (Record Equalizer, Amplifier for Stereo Cassette recorder)

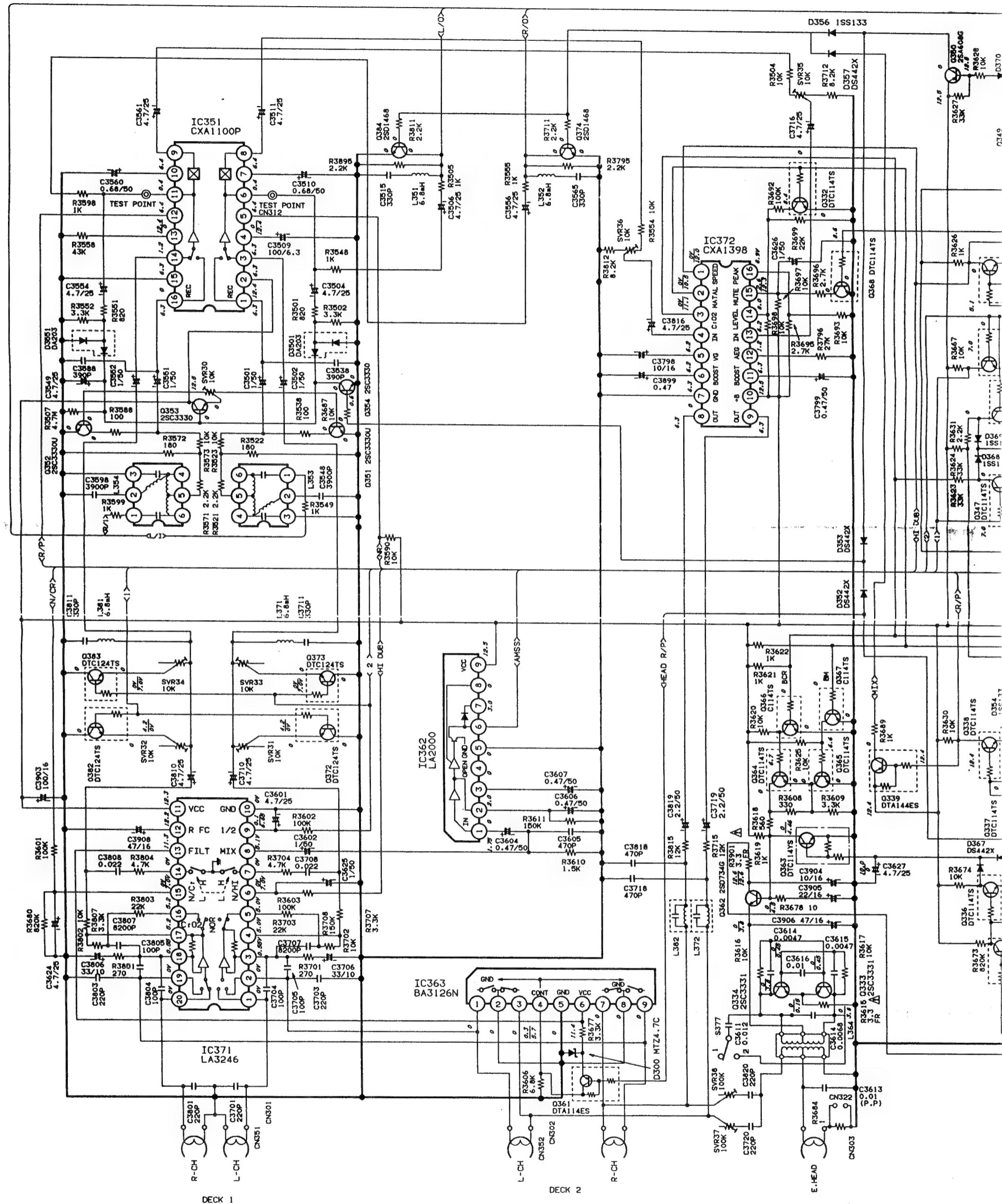


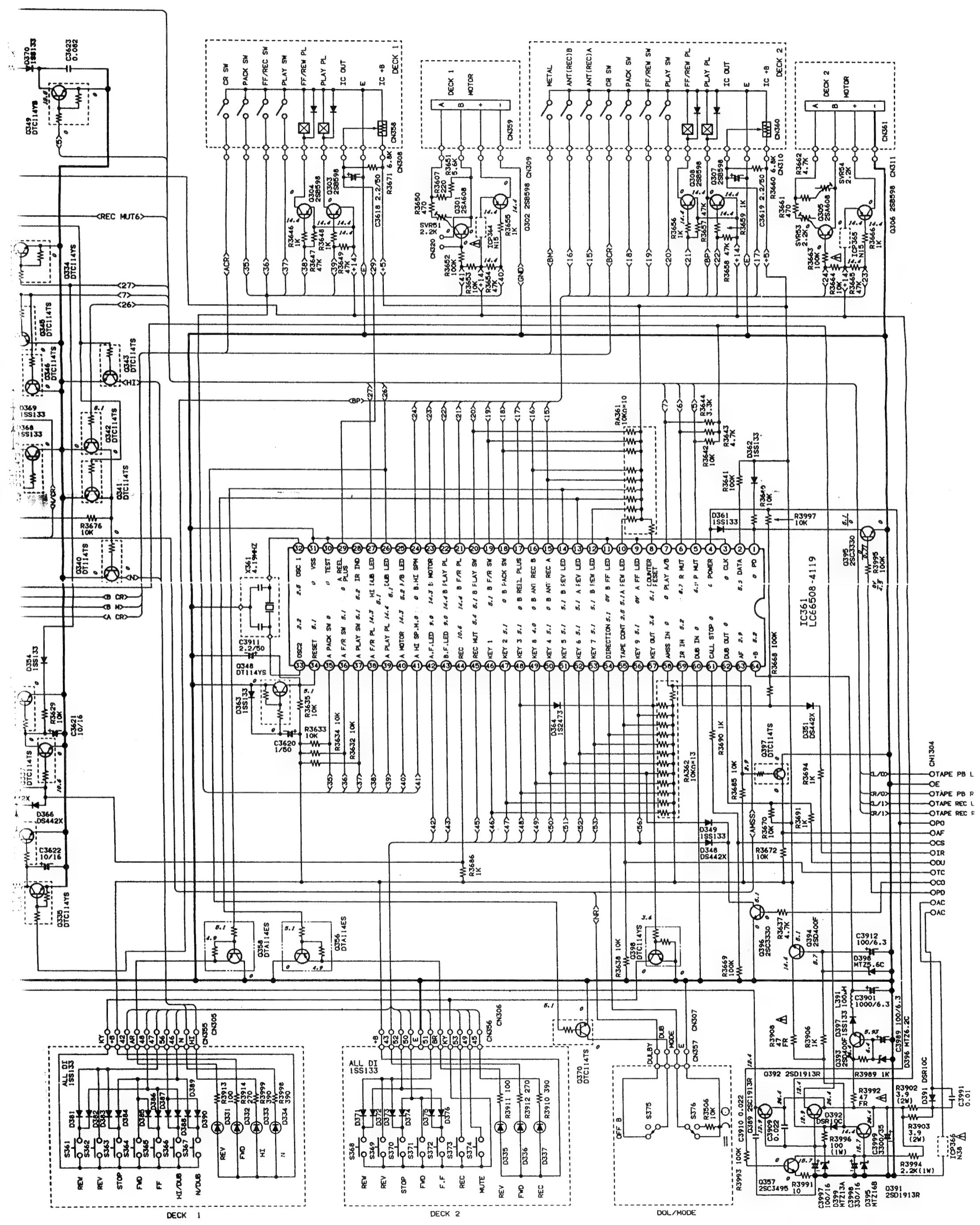
IC BLOCK DIAGRAM (TAPE DECK)

IC361 LC66508-4119(Micro Processor)

No.	Name	Description		Low	High	I/O	No.	Name	Description		Low	High	I/O	
1	PDOWN	Power Down		ON		I	33	OSC2	Pin for connection to 4.19MHz Oscillation				O	
2	DATA	Connect to +5v through the resistor, 10k ohm.					34	RESET	Input terminal of system Reset				I	
3	CLK	Ground					35	A-PACK SW	Detecting terminal for Cassette in A Mechanism				I	
4	POWER	Connect to +5v through the resistor, 10k ohm.					36	A-FF / RWD SW	Detecting terminal for FF, RWD mode in A Mechanism			FF	RWD	I
5	PMUTE	Play Mute control		OFF	ON	O	37	A-PLAY SW	Detecting terminal for Play mode in A Mechanism	PLAY				I
6	RMUTE	Record Mute control		OFF	ON	O	38	A-P2	A Mechanism FF, RWD Plunger control	ON				O
7	PLAY A/B	A Mechanism, B Mechanism Play signal control	PLAY A B	O			39	A-P1	A Mechanism Play Plunger control	ON				O
8	AMS IN	AMS signal input	non signal			I	40	A-MOTOR	A Mechanism Motor switching	ON				O
9	A-FF LED	Ground					41	A-HIGH	A Mechanism Motor speed switching	LOW	HIGH	O		
10	A-RWD LED	Connect to +5v through the resistor, 10k ohm.					42	A-FOW LED	A Mechanism Forward LED	ON				O
11	B-FF LED	Ground					43	B-FOW LED	B Mechanism Forward LED	ON				O
12	B-RWD LED	Connect to +5v through the resistor, 10k ohm.					44	REC LED	B Mechanism Record LED	ON				O
13	A-REV LED	A Mechanism Reverse LED	ON		O		45	MUTE LED	B Mechanism Record Mute LED	ON				O
14	B-REV LED	B Mechanism Reverse LED	ON		O		46	KEY1	Key 1 : FPLAY (A Forward Play)					I
15	A-ANTREC	A Anti-Record switch for B Mechanism Forward	REC	ANT REC	I		47	KEY2	Key 1 : RPLAY (A Reverse Play)					I
16	B-ANTREC	B Anti-Record switch for B Mechanism Reverse	REC	ANT REC	I		48	KEY3	Key 1-2 : STOP (A Stop) Key 1-3 : FF (A Fast Forward) Key 2-3 : REV (A Rewind)					I
17	B-REEL	B Mechanism Reel Pulse			I		49	KEY8	Key 5-6 : REV (B Rewind) Key 7 : REC (A Record) Key 8 : MUTE (A Record Mute)					I
18	B-PACK SW	Detecting terminal for Cassette in B Mechanism	being	not	I		50	KEY4	Key 4 : FPLAY (B Forward Play)					I
19	B-FF/RWD SW	Detecting terminal for FF, RWD mode in B Mechanism	FF	RWD	I		51	KEY5	Key 5 : RPLAY (B Reverse Play)					I
20	B-PLAY SW	Detecting terminal for Play mode in B Mechanism	PLAY		I		52	KEY6	Key 4-5 : STOP (B Stop)					I
21	B-P2	B Mechanism FF, RWD Plunger control	ON		O		53	KEY7	Key 4-6 : FF (B Fast Forward)					I
22	B-P1	B Mechanism Play Plunger control	ON		O		54	DIR	Direction switch Low : #, Mid : D, Hi : C					I
23	B-MOTOR	B Mechanism Motor switching	ON		O		55	TIMER	Timer standby switch Low : PLAY, Mid : OFF, Hi : REC					I
24	B-HIGH	B Mechanism Motor speed switching	LOW	HIGH	O		56	KEY9	Key 1-9 : DUB (Normal speed) Key 3-9 : HDUB (High speed) Key 4-9 : CDUB (Normal speed CD) Key 6-9 : HCDUB (High speed CD)					I
25	A/B LED	Open					57	KEYOUT	Switching to segment diodes & KEYIN					O
26	DUB LED	Normal speed Dubbing LED	ON		O		58	RESET	Counter Reset switch					I
27	HDUB	High speed Dubbing LED	ON		O		59	IRIN	Remocon data signal					I
28	IRIND	Open					60	DUBIN	Dubbing control input					I
29	A-REEL	A Mechanism Reel Pulse			I		61	CSTOP	Call Stop input					I
30	TEST	Ground					62	DUBOUT	Dubbing control output					O
31	VSS	Ground					63	AF	Auto Function control					O
32	OSC1	Pin for connection to 4.19MHz Oscillation			I		64	VDD	Power Source					

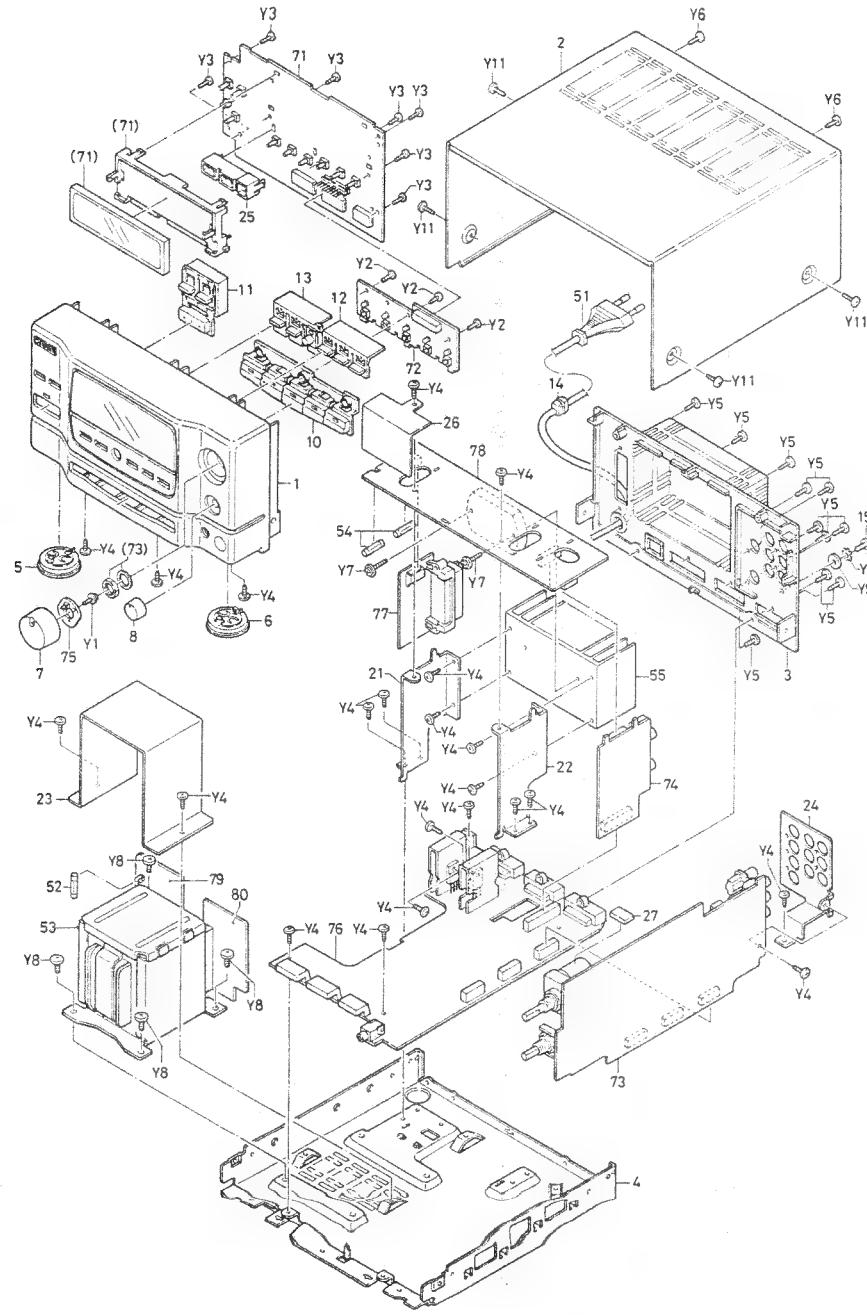
SCHEMATIC DIAGRAM (DECK)





AMPLIFIER UNIT (CA-G5)

EXPLODED VIEW (AMPLIFIER)



PARTS LIST (AMPLIFIER)

CABINET & CHASSIS (CA-G5)

REF. NO.	PART NO.	DESCRIPTION
1	614 236 1177	ASSY.PANEL.FRONT(B)
	614 236 1160	ASSY.PANEL.FRONT(W)
2	614 236 1108	ASSY.CABINET(W)
	614 232 0129	ASSY.CABINET(B)
3	614 236 1207	ASSY.PANEL.REAR
4	614 227 8727	ASSY.CABINET.BOTTOM
5	614 234 7218	ASSY.FOOT.FRONT-L
6	614 234 7225	ASSY.FOOT.FRONT-R
7	614 236 1016	KNOB.ROTARY.VOLUME(B)
	614 236 1580	KNOB.ROTARY.VOLUME(W)
8	614 236 1023	KNOB.ROTARY.BALANCE(B)
	614 236 1597	KNOB.ROTARY.BALANCE(W)
10	614 236 1214	ASSY.BUTTON,FUNCTION(W)
	614 229 2815	ASSY.BUTTON,FUNCTION(B)
11	614 227 1599	BUTTON,POWER(B)
	614 236 1641	BUTTON,POWER(W)
12	614 236 1658	BUTTON.G.EQUALIZER(W)
	614 227 1605	BUTTON.G.EQUALIZER(B)
13	614 227 1612	BUTTON.SOUND.ON/OFF
14	614 129 1772	FIXER.AC CORD
15	412 003 2804	SPECIAL SCREW,PHONO EARTH
21	614 227 1766	BRACKET-E,HEATSINK,L
22	614 227 1773	BRACKET-E,HEATSINK,R
23	614 229 0842	SHIELD,P.T
24	614 227 2008	SHIELD,TERMINAL(RCA)
25	614 227 2015	REFLECTOR,ROUND P. LED
26	614 232 7197	COVER.MAIN-AMP PCB
27	614 125 6443	CUSHION, WIRE FIX
	614 129 4971	FIXER, WIRE FIX

FIXING PARTS (CA-G5)

REF. NO.	PART NO.	DESCRIPTION
Y1	411 024 3807	SCR S-TPG PAN+FLG 2X8
Y2	411 021 3107	SCR S-TPG BIN 2.6X8
Y3	411 021 1806	SCR S-TPG BIN 2.6X10
Y4	411 021 6405	SCR S-TPG BIN 3X8
Y5	411 021 3503	SCR S-TPG BIN 3X10
Y6	411 021 3701	SCR S-TPG BIN 3X10(B)
	411 021 3404	SCR S-TPG BIN 3X10(W)
Y7	411 020 9407	SCR S-TPG BRZ+FLG 3X14
Y8	411 001 4209	SCR S-TPG BIN 4X8
Y9	411 105 9704	WASHER Z 3X10X1
Y10	411 008 0402	WASHER OUT TW 3
Y11	411 021 5903	SCR S-TPG BIN 3X6(B)
	411 098 1006	SCR S-TPG BIN 3X6(W)

ELECTRICAL PARTS (CA-65)

REF. NO.	PART NO.	DESCRIPTION
51	Δ614 023 3100	POWER CORD.AC
0R	Δ614 203 0493	POWER CORD.AC
52	Δ423 005 6509	FUSE 250V 1.25A-F4900
53	Δ614 232 8545	POWER TRANSFORMER.PT400
54	Δ423 016 8004	FUSE 250V 3.15A-F4700-4800
55	614 226 8193	HEAT SINK.FOR IC403

AMP FRONT P.C.B. BOARD ASSY

REF. NO.	PART NO.	DESCRIPTION
71	614 234 2220	ASSY,PCB,FL SPEANA
	614 227 1858	MOUNT-EL.FL TUBE GUIDE
	614 226 7943	FLUORESCENT TUBE, SPEANA
CN410	614 226 9954	PLUG-8P. TO MICON PCB
CN411	614 226 9978	PLUG-10P. TO MICON PCB

REF.NO.	PART NO.	DESCRIPTION
CN412	614 226 9978	PLUG,10P,TO MICON PCB
CN413	614 229 0392	PLUG,13P,TO FUNC SW PCB
04005	407 012 4406	DIODE 1SS133
04006	407 012 4406	DIODE 1SS133
04007	407 012 4406	DIODE 1SS133
04008	407 012 4406	DIODE 1SS133
04009	407 012 4406	DIODE 1SS133
04010	407 012 4406	DIODE 1SS133
04011	407 012 4406	DIODE 1SS133
04012	407 012 4406	DIODE 1SS133
D4413	407 012 4406	DIODE 1SS133
D4414	407 012 4406	DIODE 1SS133
D4908	407 053 6308	ZENER DIODE MTZ5.1B
D4909	408 015 0709	LED SLZ-382F-45-AB-T1, SOUND ON/OFF
D4910	408 014 3800	LED SLZ-382F-03-AB-T1, SURROUND
D4911	408 014 3800	LED SLZ-382F-03-AB-T1, SURROUND
D4912	408 014 3800	LED SLZ-382F-03-AB-T1, DYNAMIC BASS
D4913	408 014 3800	LED SLZ-382F-03-AB-T1, DYNAMIC BASS
D4914	407 107 2706	DIODE DAN803
D4916	408 014 4302	LED SLZ-151B-06-AB-T2, POWER
IC400	409 235 2603	IC XRA14741
IC401	409 235 2603	IC XRA14741
IC402	409 112 9206	IC LCMS55A
94403	405 000 3400	TR DTC114TS
94404	405 000 3400	TR DTC114TS
R4401	614 209 3696	RESISTOR 100K X8
OR	614 218 0464	RESISTOR 100K X8
RA402	614 209 3719	RESISTOR 100K X9
OR	614 218 0471	RESISTOR 100K X9
RA403	614 218 0518	RESISTOR 100K X13
OR	614 209 3795	RESISTOR 100K X13
S4906	614 220 5655	SWITCH,TACT,6,EQ UP
S4907	614 220 5655	SWITCH,TACT,FREQ/MEMO
S4908	614 220 5655	SWITCH,TACT,6,EQ DOWN
S4909	614 220 5655	SWITCH,TACT,SOUND ON/OFF
S4910	614 220 5655	SWITCH,TACT,SURROUND
S4911	614 220 5655	SWITCH,TACT,DYNAMIC BASS
S4912	614 220 5655	SWITCH,TACT,PROGRAMMED
S4913	614 220 5655	SWITCH,TACT,PRESET
S4914	614 220 5655	SWITCH,TACT,POWER

FUNCTION SWITCH P.C. BOARD AS

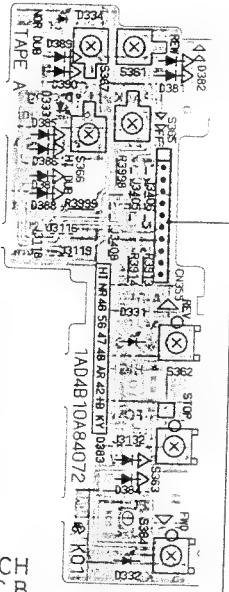
REF.NO.	PART NO.	DESCRIPTION
72	614 234 2237	ASSY,PCB,FUNC SW
CN409	614 221 9133	SOCKET,13P,TO FRONT PCB
D4903	407 036 9203	LED SLP-138C-51-B,TAPE
D4904	407 036 9203	LED SLP-138C-51-B,TUNER
D4905	407 036 9203	LED SLP-138C-51-B,CD
D4906	407 036 9203	LED SLP-138C-51-B,PHONO
D4907	407 036 9203	LED SLP-138C-51-B,AU
S4901	614 220 5631	SWITCH,TACT,TAPE
S4902	614 220 5631	SWITCH,TACT,TUNER
S4903	614 220 5631	SWITCH,TACT,CD
S4904	614 220 5631	SWITCH,TACT,PHONO
S4905	614 220 5631	SWITCH,TACT,AU

PREF-AMP1 TETER P.C.-BOARD ASS

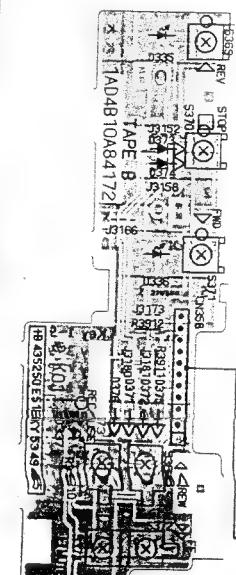
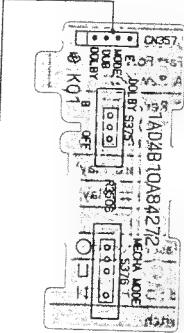
REF.NO.	PART NO.	DESCRIPTION
73	614 234 2251	ASSY,PCB,FUNCTION
C4507	403 062 6209	POLYESTER 0.056U J 50V
C4509	403 057 1905	POLYESTER 0.1U J 50V

WIRING DIAGRAM (TAPE DECK)

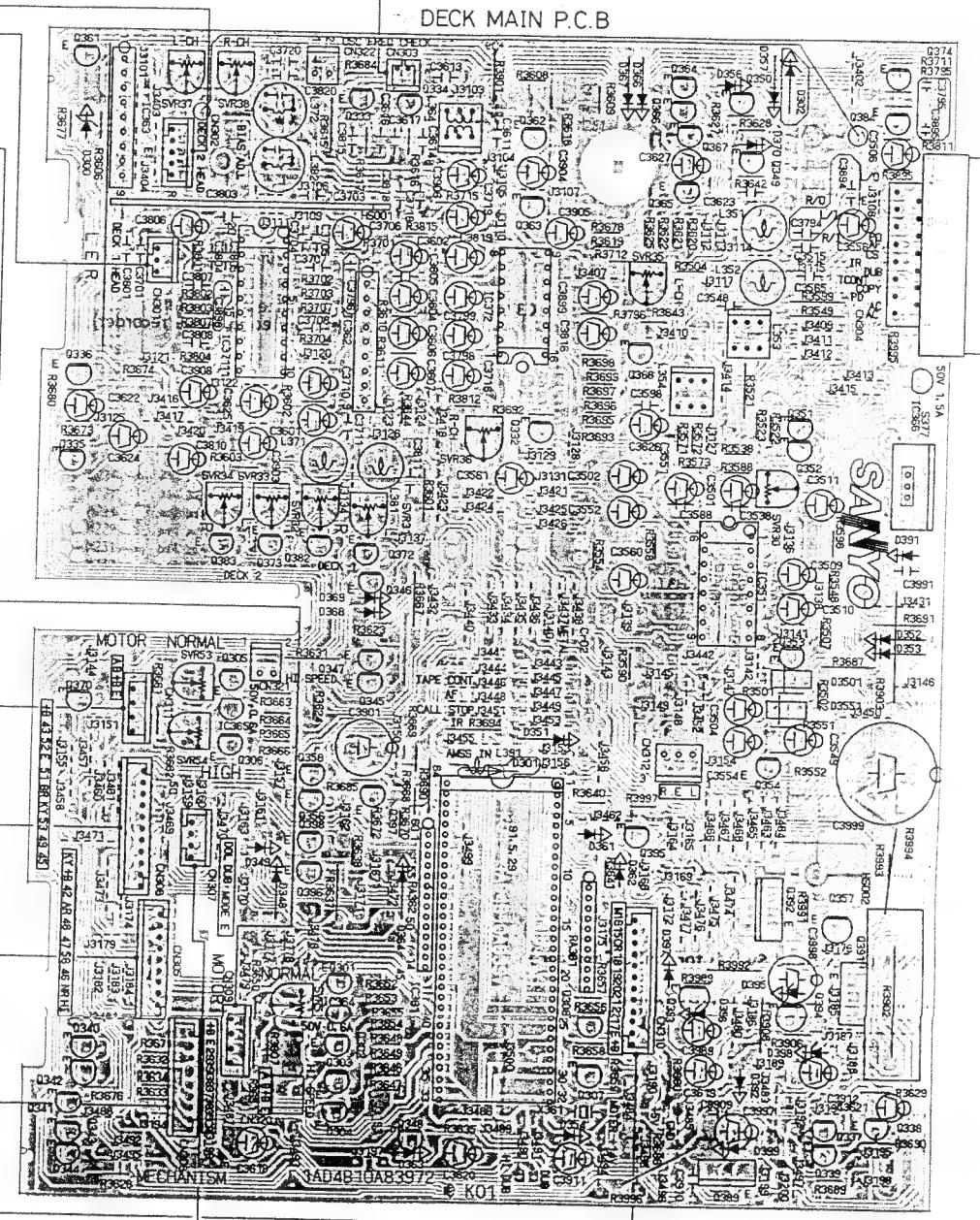
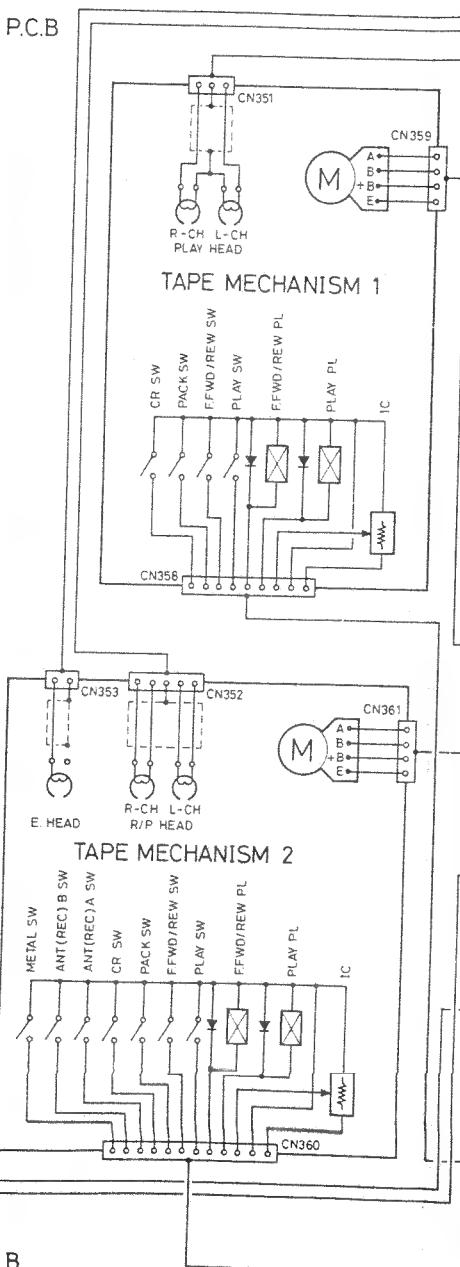
TAPE DECK 1 OPERATION SWITCH P.C.B



DOLBY/MODE SWITCH P.C.B



TAPE DECK 2 OPERATION SWICH P.C.B



PARTS LIST (AMPLIFIER)

REF.NO.	PART NO.	DESCRIPTION
C4510	403 057 1905	POLYESTER 0.1U J 50V
C4511	403 057 1905	POLYESTER 0.1U J 50V
C4512	403 057 1905	POLYESTER 0.1U J 50V
C4513	403 139 9102	MT-POLYEST 0.082U J 63V
C4515	403 065 8200	MT-POLYEST 0.27U J 63V
C4517	403 065 8200	MT-POLYEST 0.033U J 63V
C4518	403 139 8600	MT-POLYEST 0.1U J 63V
C4519	403 065 8002	MT-PLLYEST 0.056U J 50V
C4607	403 062 6209	POLYESTER 0.056U J 50V
C4609	403 057 1905	POLYESTER 0.1U J 50V
C4610	403 057 1905	POLYESTER 0.1U J 50V
C4611	403 057 1905	POLYESTER 0.1U J 50V
C4612	403 057 1905	POLYESTER 0.1U J 50V
C4615	403 139 9102	MT-POLYEST 0.082U J 63V
C4617	403 065 8200	MT-POLYEST 0.27U J 63V
C4618	403 139 8600	MT-POLYEST 0.033U J 63V
C4619	403 065 8002	MT-PLLYEST 0.1U J 63V
CN460	614 229 0279	ASSY.CONNECTOR-P.2P.TO VOL MOTOR
CN461	614 017 2539	TR.2P.TO VOL LED PCB
CN462	614 226 0067	SOCKET.9P.TO MICON PCB
CN463	614 226 0050	SOCKET.8P.TO MICON PCB
CN464	614 226 0067	SOCKET.9P.TO MICON PCB
CN465	614 226 8230	SOCKET.6P(RCA), AUDIO(AU-OUT-AU-IN-PHONO)
CN466	614 226 0012	SOCKET.4P.TO MAIN-AMP. PCB
D4057	407 013 7109	DIODE 1S2473
D4058	407 007 9904	DIODE 1S2473
D4059	407 053 5806	ZENER DIODE MT24.7B
D4056	407 053 5806	ZENER DIODE MT24.7B
D4055	407 053 6308	ZENER DIODE MT25.1B
D4056	407 053 7701	ZENER DIODE MT26.8C
D4057	407 053 7701	ZENER DIODE MT26.8C
D4058	407 053 6407	ZENER DIODE MT25.1C
IC451	409 232 7205	IC XR4051B
IC452	409 232 7205	IC XR4051B
IC453	409 238 6806	IC RC4558S-0.MIC MIX
IC454	409 238 6806	IC RC4558S-0.GEQ BUFFER
IC455	409 114 4803	IC LB1641.MOTOR DRIVE
IC456	409 088 4007	IC LC7222.7-GEQ VR
IC457	409 238 6806	IC RC4558S-0.D.BASS
IC472	409 238 6806	IC RC4558S-0.PHONO
L451	614 027 9214	CHOKE COIL
Q4056	405 000 6104	TR DTC144ES
Q4057	405 000 6104	TR DTC144ES
Q4058	405 000 0508	TR DT1144ES
Q4059	405 000 0508	TR DT114ES
Q4500	405 011 8609	TR ZSC1740S
Q4502	405 011 8609	TR ZSC1740S
Q4503	405 011 8609	TR ZSC1740S
Q4504	405 011 8609	TR ZSC1740S
Q4505	405 011 8609	TR ZSC1740S
Q4506	405 011 8609	TR ZSC1740S
Q4507	405 011 8609	TR ZSC1740S
Q4508	405 011 8609	TR ZSC1740S
Q4509	405 011 8609	TR ZSC1740S
Q4510	405 011 8609	TR ZSC1740S
Q4600	405 011 8609	TR ZSC1740S
Q4602	405 011 8609	TR ZSC1740S
Q4603	405 011 8609	TR ZSC1740S
Q4604	405 011 8607	TR ZSC1740S
Q4605	405 011 8609	TR ZSC1740S
Q4606	405 011 8609	TR ZSC1740S
Q4607	405 011 8609	TR ZSC1740S
Q4608	405 011 8609	TR ZSC1740S
Q4609	405 011 8609	TR ZSC1740S
Q4610	405 011 8609	TR ZSC1740S
R4956	△402 004 4303	FUSIBLE RES 10 J-1/4W
R4956	614 218 0464	RESISTOR.100K X8
DR	614 209 3696	RESISTOR.100K X8

PARTS LIST (AMPLIFIER)

REF.NO.	PART NO.	DESCRIPTION
RA457	614 218 0464	RESISTOR.100K X8
DR	614 209 3696	RESISTOR.100K X8
UR451	614 228 1338	VR.ROTARY.250K OHM.BALANCE
UR452	614 219 2634	VR.ROTARY.50K OHM(W/MOTOR). MASTER VOLUME

VIDEO TERMINAL P.C.B. BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
74	614 234 2268	ASSY.PCB.VIDEO
CN451	614 226 0128	SOCKET.15P.TO MICON PCB
CN453	614 226 0081	SOCKET.11P.TO MAIN-AMP. PCB
CN455	614 230 0107	SOCKET.1P(RCA).AV-IN
CN483	614 230 0107	SOCKET.1P(RCA).MONITOR OUT
D4451	407 053 5806	ZENER DIODE MT24.7B
D4454	407 012 4406	DIODE 1S5133
IC458	409 232 1807	IC XRU4052B
IC452	405 006 1806	TR ZSA933S-R
IC453	405 011 8609	TR ZSC1740S-S
R4461	△402 004 4303	FUSIBLE RES 10 J-1/4W
R4978	△401 059 2807	OXIDE-MT 150 JA 1W

VOLUME LED P.C.B. BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
75	614 234 2312	ASSY.PCB.VOL LED
CN480	614 229 0941	ASSY.CONNECTOR-S.2P, TO PRE-AMP. PCB
D4075	408 014 3909	LED SLP-190B-14-AB-T1.VOL PONTER

MICRO PROCESSOR P.C.B. BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
76	614 234 2244	ASSY.PCB.MICON
	614 217 7266	LG6.WIRE FIX(L=30MM)
C4060	403 038 4505	ELECT 1000U M 6.3V
C4960	403 047 6309	ELECT 470U M 25V
CN467	614 226 9992	SOCKET.8P.TO FRONT PCB
CN468	614 227 0011	SOCKET.10P.TO FRONT PCB
CN469	614 227 0011	SOCKET.10P.TO FRONT PCB
CN470	614 220 9066	JACK.HEADPHONE
CN471	614 225 9931	PLUG.9P.TO PRE-AMP. PCB
CN472	614 225 9924	PLUG.8P.TO PRE-AMP. PCB
CN473	614 225 9931	PLUG.9P.TO PRE-AMP. PCB
CN474	614 225 9993	PLUG.15P.TO VIDEO PCB
CN475	614 227 2978	SOCKET.15P.TO DECK UNIT
CN476	614 227 2961	SOCKET.15P.TO TUNER UNIT
CN477	614 227 2985	SOCKET.15P.TO CO UNIT
CN479	614 020 6623	SOCKET.10P.TO P.T-SEC. PCB
CN484	614 020 6579	SOCKET.5P.TP TERMINAL
D4055	407 007 9904	DIODE 1S2473
D4056	407 007 9904	DIODE 1S2473
D4059	407 012 4406	DIODE 1S5133
D4060	407 012 4406	DIODE 1S5133
DR9902	△901 991 7102	DIODE 1S2473
D4063	407 013 7109	DIODE 1S2473
D4064	407 013 7109	DIODE 1S2473
D4065	407 013 7109	DIODE 1S2473
D4068	407 013 7109	DIODE 1S2473
D4074	407 007 9904	DIODE 1S2473
D4077	407 013 7109	DIODE 1S2473
D4078	407 013 7109	DIODE 1S2473
D4080	407 007 9904	DIODE 1S2473
D4081	407 007 9904	DIODE 1S2473

SPEAKER TERMINAL P.C.B. BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
77	614 234 2275	ASSY.PCB.SP TERMINAL
C4555	403 062 5905	POLYESTER 5600U M 50V
C4655	403 062 5905	POLYESTER 5600U M 50V
C4706	403 057 3800	POLYESTER 0.1U M 50V
C4707	403 057 3800	POLYESTER 0.1U M 50V
C4806	403 057 3800	POLYESTER 0.1U M 50V
C4807	403 057 3800	POLYESTER 0.1U M 50V
C484	614 214 8624	PLUG.4P.TO MAIN-AMP. PCB
C485	614 020 6579	SOCKET.5P.MICON

REF.NO.	PART NO.	DESCRIPTION
77	614 234 2275	ASSY.PCB.SP TERMINAL
C4555	403 062 5905	POLYESTER 5600U M 50V
C4655	403 062 5905	POLYESTER 5600U M 50V
C4706	403 057 3800	POLYESTER 0.1U M 50V
C4707	403 057 3800	POLYESTER 0.1U M 50V
C4806	403 057 3800	POLYESTER 0.1U M 50V
C4807	403 057 3800	POLYESTER 0.1U M 50V
C484	614 214 8624	PLUG.4P.TO MAIN-AMP. PCB
C485	614 020 6579	SOCKET.5P.MICON

MAIN AMPLIFIER P.C.B. BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
78	614 234 2282	ASSY.PCB.MAIN AMP
	614 229 0286	ASSY.CONNECTOR-S.3P(CH400)
C4900	403 057 3800	POLYESTER 0.1U M 50V
C4901	403 057 3800	POLYESTER 0.1U M 50V
C4912	403 200 0304	ELECT 3300U M 35V
C4913	403 200 0304	ELECT 3300U M 35V
C4900	614 020 1222	SOCKET.3P.TO P.T SEC. PCB
C4901	614 214 8631	SOCKET.4P.TO SP PCB
C4902	614 225 9887	PLUG.4P.TO PRE-AMP. PCB
C4903	614 225 9955	PLUG.11P.TO VIDEO PCB
C4904	407 012 4406	DIODE 1S5133
C4905	407 012 4406	DIODE 1S5133
C4906	407 012 4406	DIODE 1S5133
C4907	407 012 4406	DIODE 1S5133
C4908	407 012 4406	DIODE 1S5133
C4909	407 012 4406	DIODE 1S5133
C4910	407 012 4406	DIODE 1S5133
C4911	407 013 7109	DIODE 1S2473
C4900	△407 077 7800	DIODE RBV-402LF-A
FCP01	614 208 4540	FUSE HOLDER.FOR F4700
FCP02	614 208 4540	FUSE HOLDER.FOR F4700
FCP03	614 208 4540	FUSE HOLDER.FOR F4800
FCP04	614 208 4540	FUSE HOLDER.FOR F4800
IC403	△409 047 0903	IC STK4152MK2
Q4400	405 000 0904	TR DTA114YS
Q4401	405 000 3806	TR DTC114YS
Q4402	405 018 0200	TR ZSC3331-U
Q4700	405 011 8609	TR ZSC1740S-S
Q4701	405 011 8609	TR ZSC1740S-S
Q4800	405 011 8609	TR ZSC1740S-S
Q4801	405 011 8609	TR ZSC1740S-S
R4711	401 008 7204	CARBON 2.2K JB 1/2W
R4811	401 008 7204	CARBON 2.2K JB 1/2W
R4900	△402 023 1703	FUSIBLE RES 100 J-1/4W
R4901	△402 023 1703	FUSIBLE RES 100 J-1/4W
RE900	614 224 4531	RELAY.AF SIGNAL

P.T PRIMARY P.C.B. BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
79	614 234 2299	ASSY.PCB.PT PRI
CN415	△614 123 2089	TERMINAL.1P.AC IN
CN416	△614 123 2089	TERMINAL.1P.AC IN
FCP05	614 208 4540	FUSE HOLDER
FCP06	614 208 4540	FUSE HOLDER
L4900	△614 229 0439	INDUCTOR.FERITE.WITH COVER

P.T SECONDARY P.C.B. BOARD ASSY

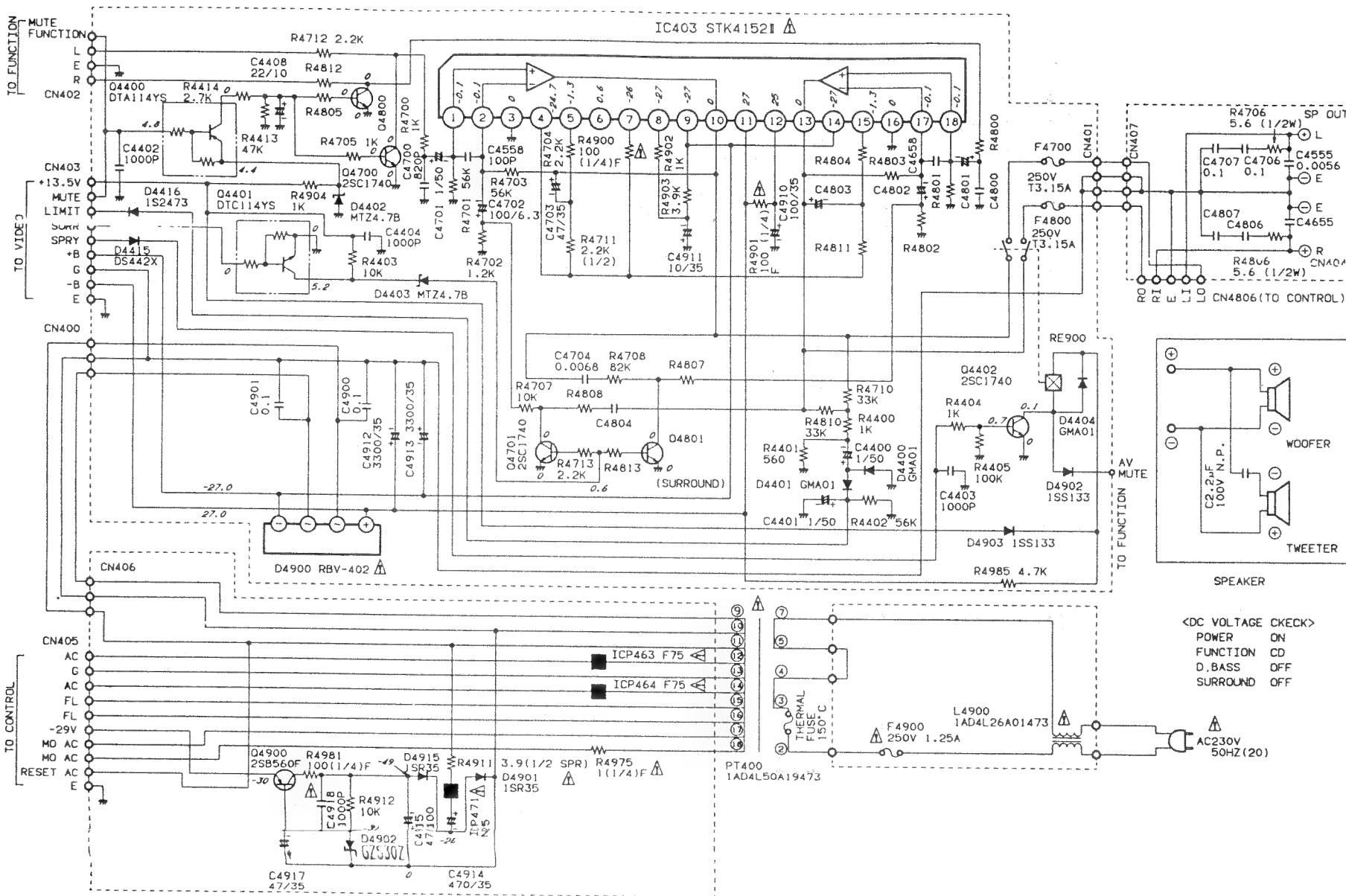
REF.NO.	PART NO.	DESCRIPTION
80	614	

PARTS LIST (AMPLIFIER)

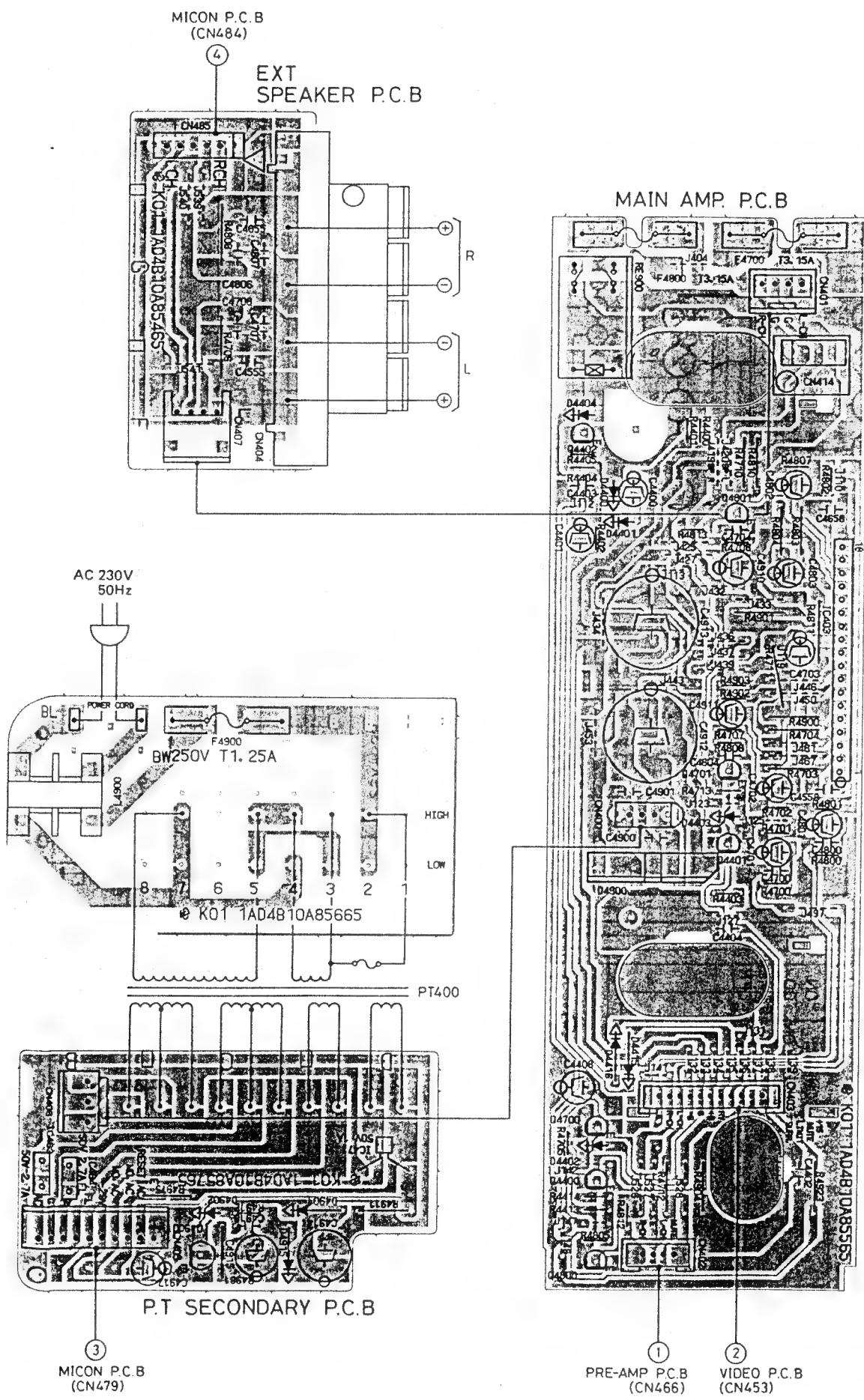
REF.NO.	PART NO.	DESCRIPTION
ICP471	△614 002 3367	IC-PROTECTOR ICP-N25
Q4900	405 007 5308	TR 2SB560-F-MP
R4911	△402 044 7906	RESISTOR 3.9 J-1/2W
R4975	△402 004 3801	FUSIBLE RES 1 J-1/4W
R4981	△402 023 1703	FUSIBLE RES 100 J-1/4W

MEMO

SCHEMATIC DIAGRAM (AMPLIFIER - POWER)



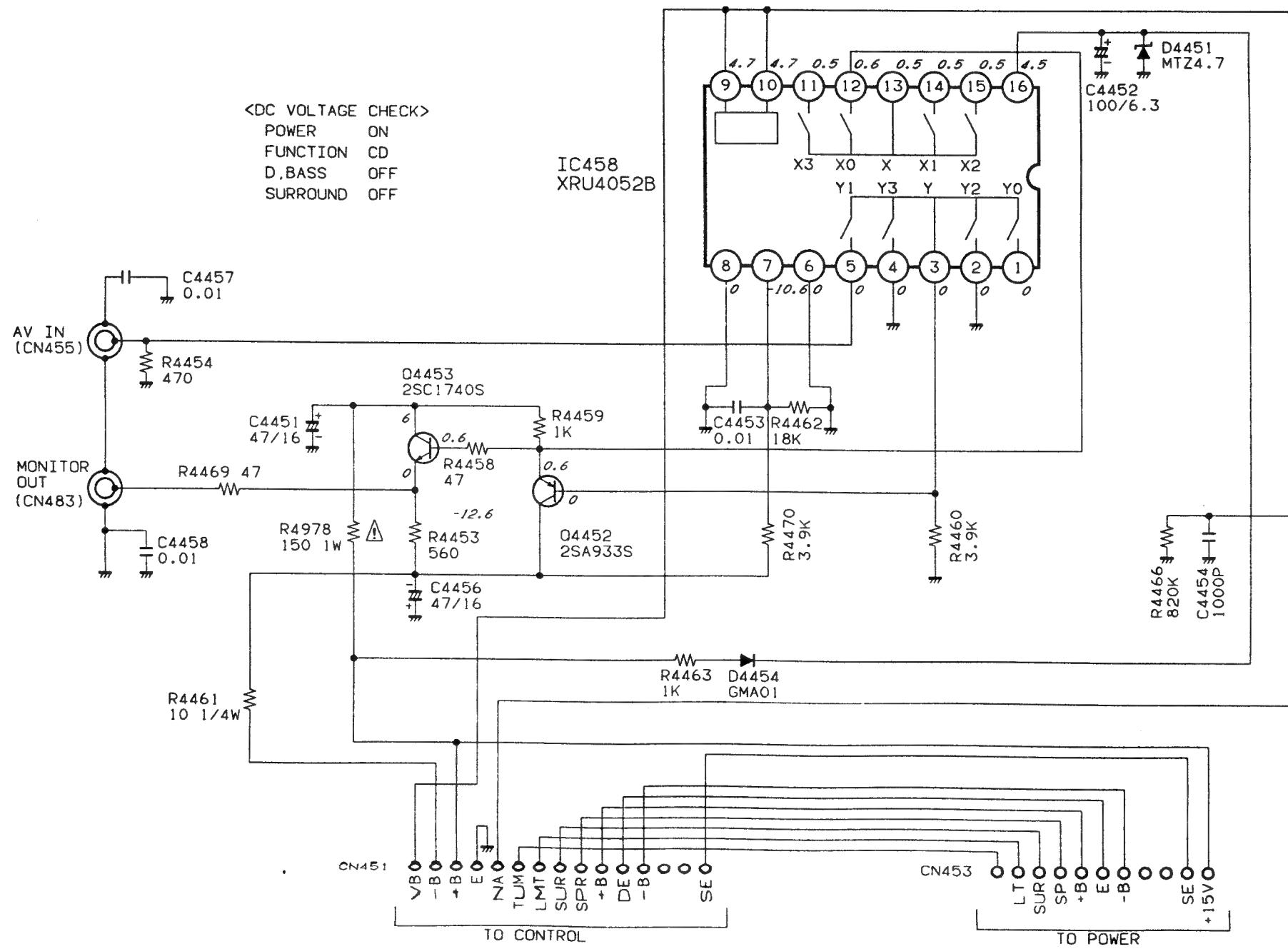
WIRING DIAGRAM (AMPLIFIER - POWER)



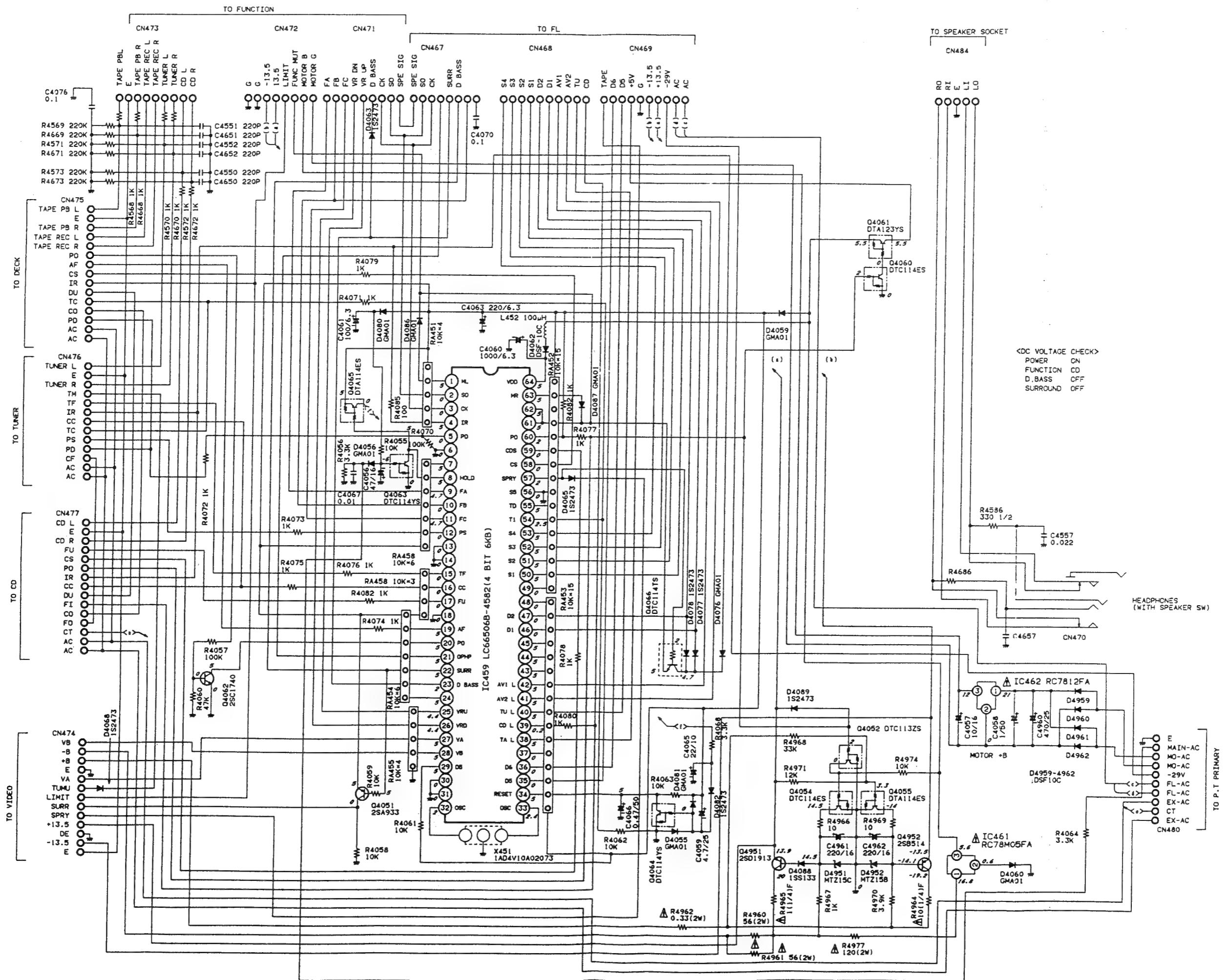
SCHEMATIC DIAGRAM (AMPLIFIER - VIDEO)

<DC VOLTAGE CHECK>
POWER ON
FUNCTION CD
D,BASS OFF
SURROUND OFF

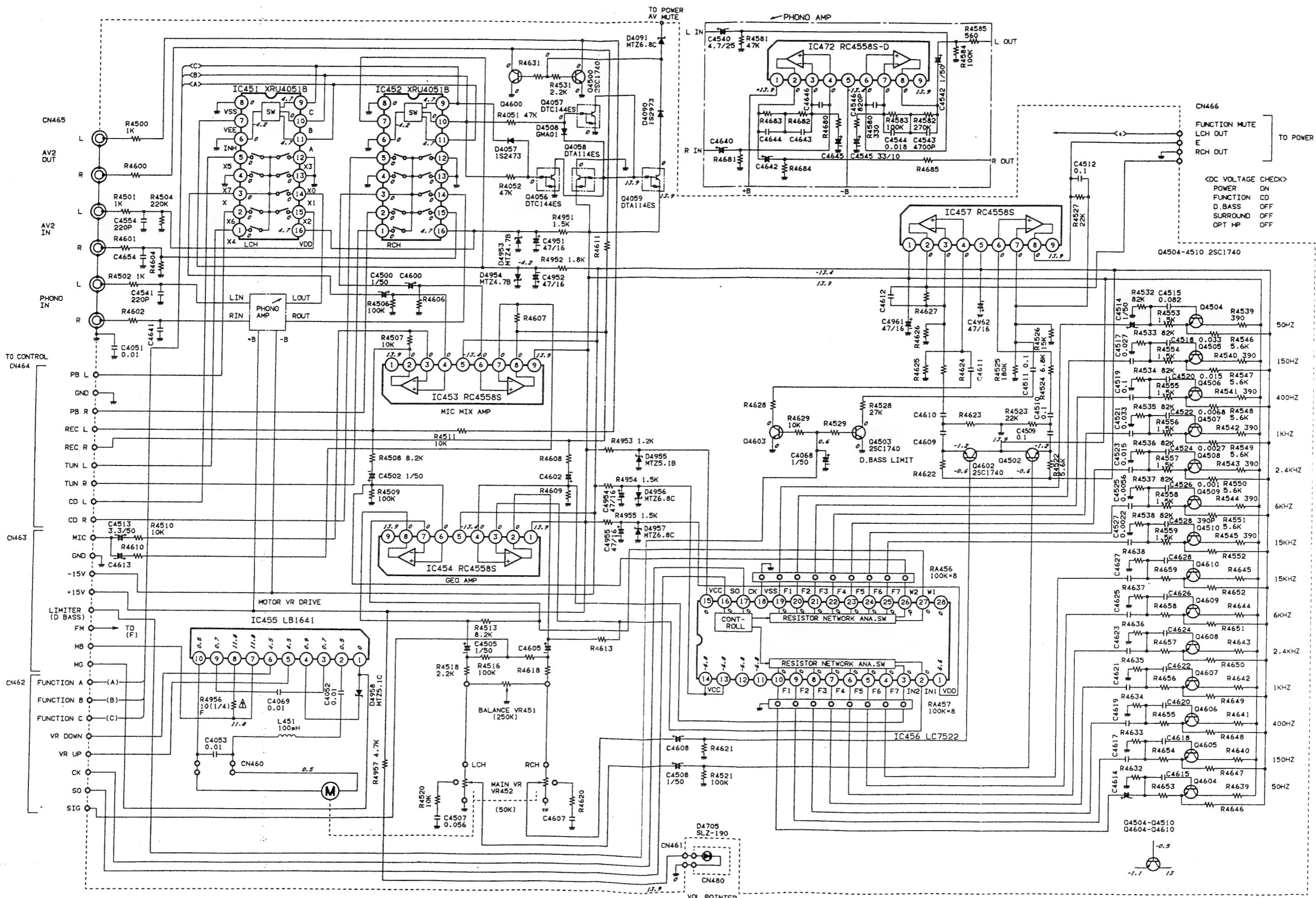
IC458
XRU4052B



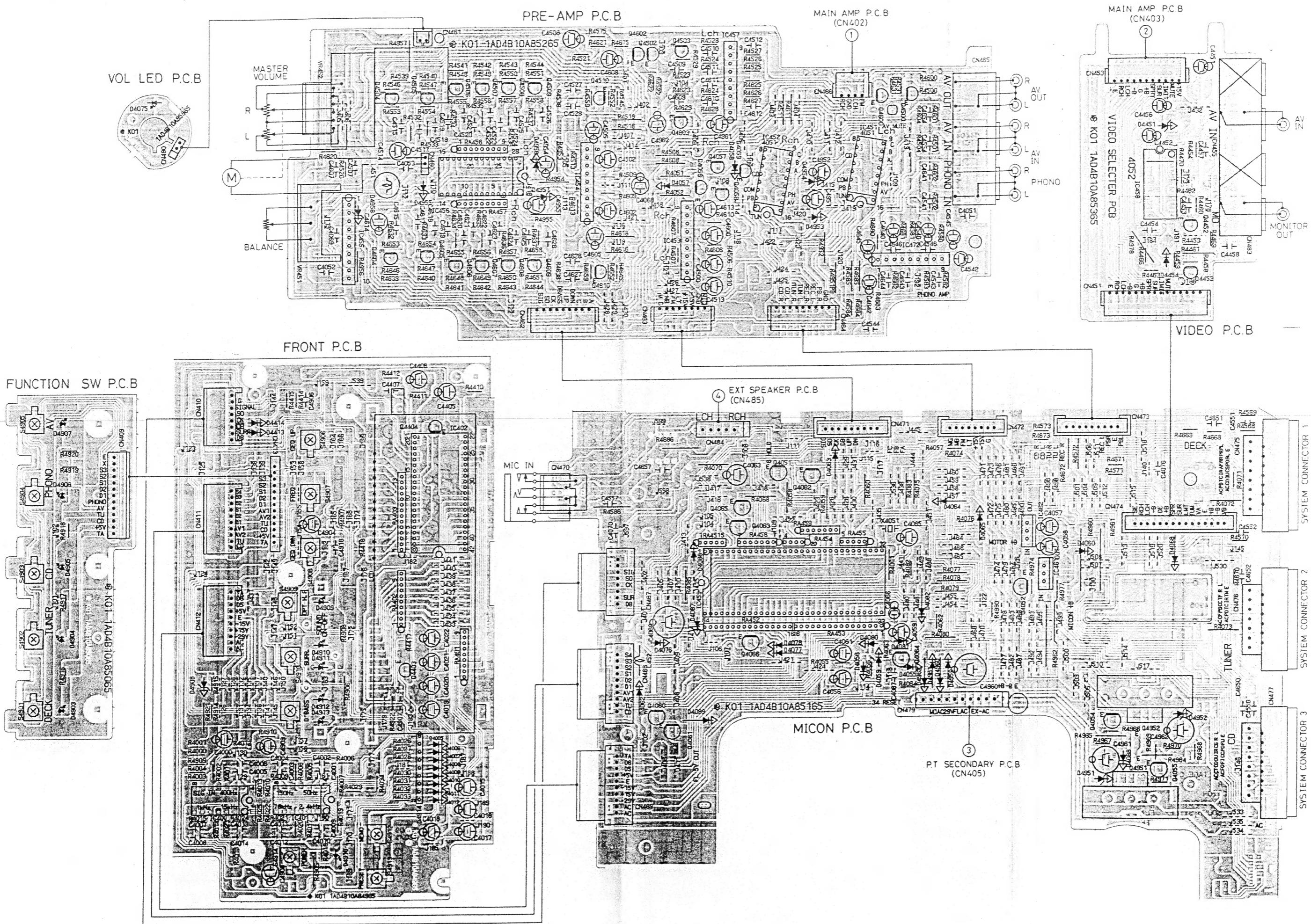
SCHEMATIC DIAGRAM (AMPLIFIER - CONTROL).



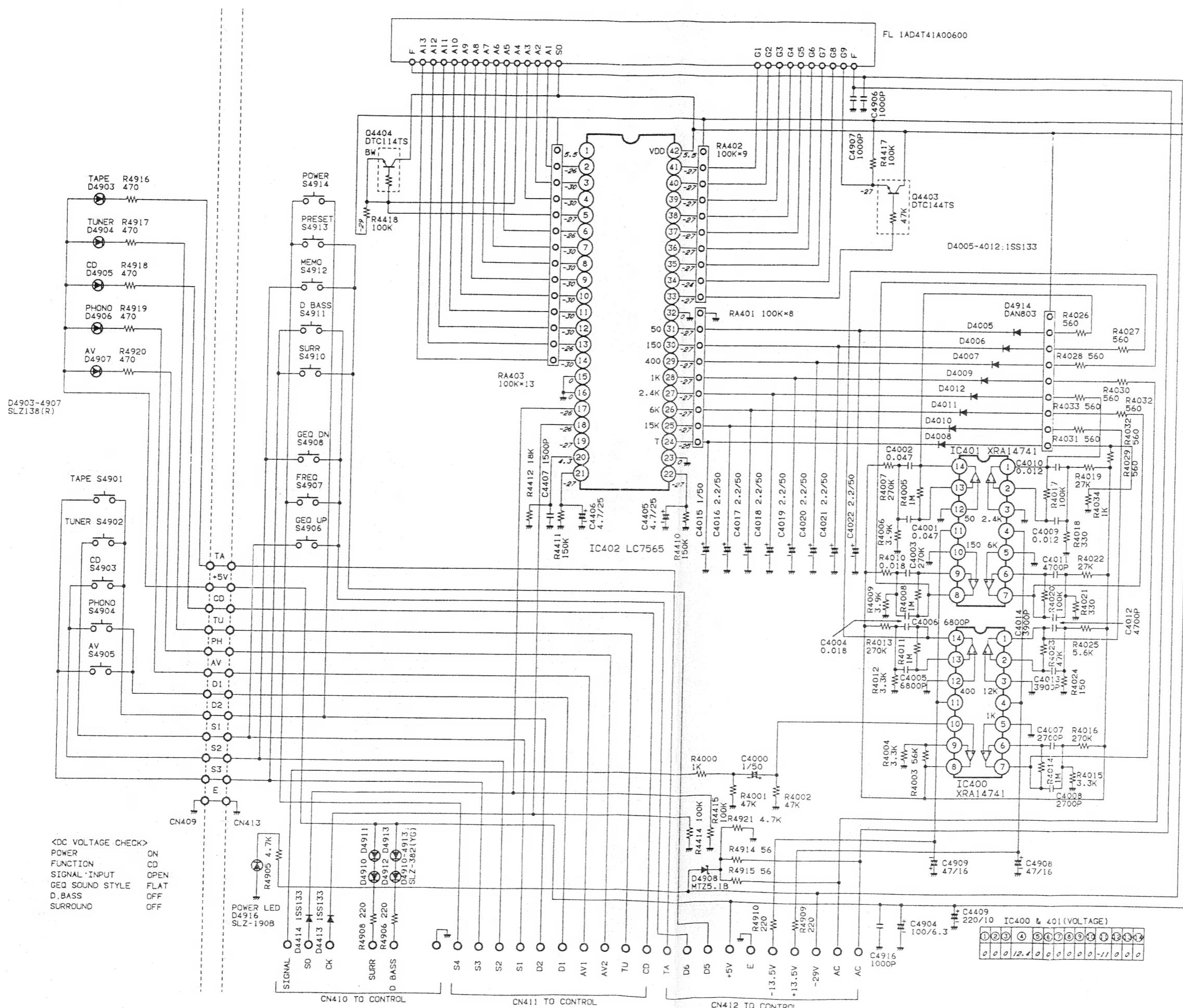
SCHEMATIC DIAGRAM (AMPLIFIER - FUNCTION)



WIRING DIAGRAM (AMPLIFIER)

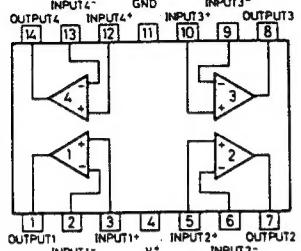


SCHEMATIC DIAGRAM (AMPLIFIER - FL)



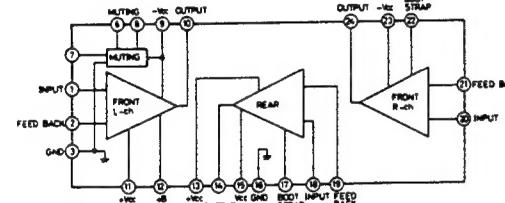
IC BLOCK DIAGRAM (AMPLIFIER)

IC4001A01 XBA14741(Dual Operational Amplifier)



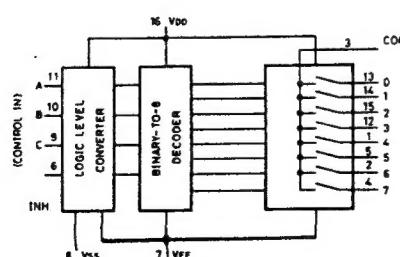
IC402 LC7565A(Fluorescent Tube Display Driver)

IC403 STK4152MK2(3 - Channel AF Power Amplifier)



IC451·452 XRU4051B(Signal 8-Channel Multiplexer / DeMultiplexer)

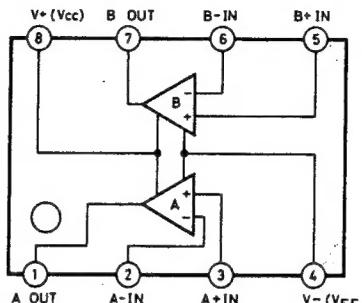
CONTROL INPUTS				"ON" CHANNEL	
INHIBIT	C	B	A	TC4051BP	TC4052BP
L	L	L	L	0	0X.0Y
L	L	L	H	1	1X.0Y
L	L	M	L	2	2X.0Y
L	L	M	H	3	3X.3Y
L	M	L	L	4	—
L	M	L	H	5	—
L	M	M	L	6	—
L	M	M	H	7	—
H	*	*	*	None	None



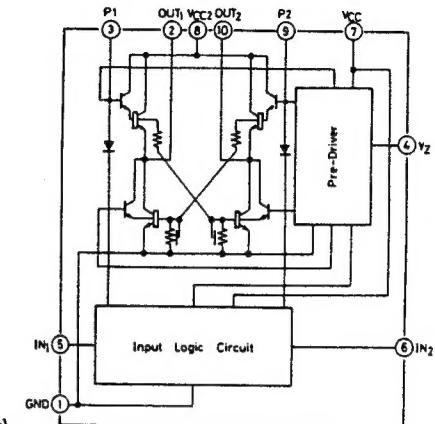
IC BLOCK DIAGRAM (AMPLIFIER)

IC453 · 454 RC4558S-D(Dual Operational Amplifier)

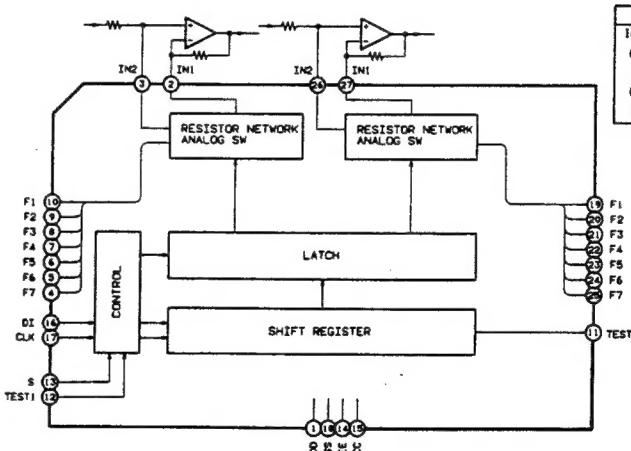
IC457 • 472



IC455 LB1641(Motor Driver)

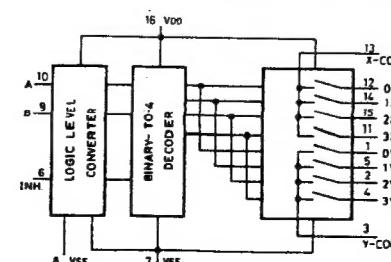


IC456 LC7522(7-Segment Graphic Equalizer Variable Resistor)

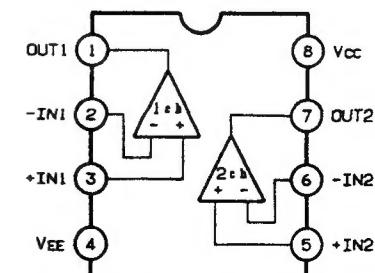


Input	Output		Action
IN1	IN2	OUT1	OUT2
0	0	0	0
1	0	1	0
0	1	0	1
1	1	0	0

IC458 XRU4052B(De)ferential Multiplexer / DeMultiplexer



IC460 XRA4558(Dual Operational Amplifier)



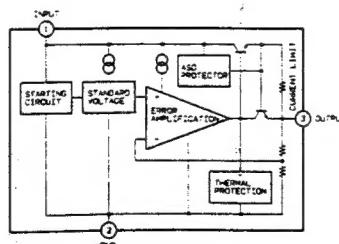
IC BLOCK DIAGRAM (AMPLIFIER)

IC459 LC66506B-4582(4 Bit Micro Processor)

PIN	PIN NAME	DESCRIPTION	HIGH	LOW
1	L MOTOR	Motor Output for Headphone		Rotate
2	SO	Output for LC7565,LC7522 Serial Data	Transmit	
3	CLK	CLK Output for LC7565,LC7522 Serial Data	Transmit	
4	IR	Remote Control Input	IN	
5	PDOWN	ON/OFF Input of Power Source from TUNER	ON	OFF
6	S1	Select Input of Remote Control Decord Cord	Transmit	
7	S2	Select Input of Remote Control Decord Cord	Transmit	
8	HOLD	Detected Input for Power Failure	Normal	Power Failure
9	4051A	Select Output of IC4051 Audio Signal	1	0
10	4051B	Select Output of IC4051 Audio Signal	1	0
11	4051C	Select Output of IC4051 Audio Signal	1	0
12	TUPOWER	ON/OFF Output of Power Source to Tuner	OUT	
13	S6	Select Input of Remote Control Decord Cord	Transmit	
14	S3	Select Input of Remote Control Decord Cord	Transmit	
15	TU.AF	Input of TUNER Function	IN	
16	CD.CONT	Input of CD TIMER Control	IN	
17	CD.AF	Input of CD Function	IN	
18	S4	Select Input of Display Device	Transmit	
19	TA.AF	Input of TAPE DECK Function	IN	
20	POWER	Input of Procession on Power Failure to TAPE DECK	IN	
21	H.PHONE	Select Output of HEADPHONE & Output of Indication LED	ON	
22	SURROUND	Select Output of SURROUND & Output of Indication LED	ON	
23	D'bass	Select Output of D'BASS & Output of Indication LED	ON	
24		Not Used		
25	VOLUP	Motor Output for the Volume	OUT	
26	VOLDOWN	Motor Output for the Volume	OUT	
27	4052A	Select Output of IC 4052 Video Signal	1	0
28	4052B	Select Output of IC 4052 Video Signal	1	0
29		Not Used		
30	TEST	To Earth		
31	VSS	To Earth		
32	OSC1	CR Oscillation(4.19MHz)		
33	OSC2	CR Oscillation(4.19MHz)		
34	RES	Input of RESET	Normal	RESET
35	DIG5	Input of Key(Digit Output)		OUT
36	DIG6	Input of Key(Digit Output)		OUT
37	DIG7	Not Used		

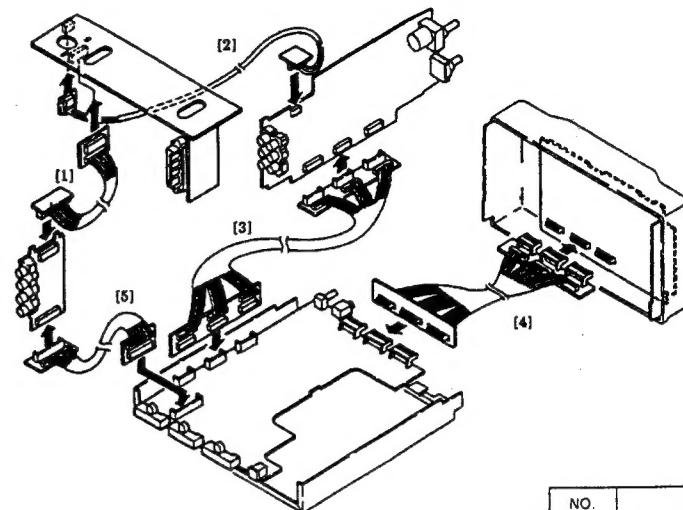
PIN	PIN NAME	DESCRIPTION	HIGH	LOW
38	TAPE	Output of Indication LED of TAPE Function		Light Up
39	CD	Output of Indication LED of CD Function		Light Up
40	TUNER	Output of Indication LED of CD Function		Light Up
41		Not Used		
42	AV2	Output of Indication LED of AV2 Function		Light Up
43	AV1	Output of Indication LED of AV1 Function		Light Up
44		Not Used		
45		Not Used		
46	DIG1	Input of Key(Digit output)		OUT
47	DIG2	Input of Key(Digit output)		OUT
48	DIG3	Not Used		
49	DIG4	Not Used		
50	SEG1	Input of Key Segment	IN	
51	SEG2	Input of Key Segment	IN	
52	SEG3	Input of Key Segment	IN	
53	SEG4	Input of Key Segment	IN	
54	T.CONT	Control Input of TAPE DECK TIMER	REC	PLAY
55		Not Used		
56	S5	Select Input of Remote Control Decord Cord	Transmit	
57	SPRELAY	ON/OFF Output of Speaker Relay	ON	OFF
58	T.CSTOP	CSTOP Output of TAPE DECK (System Movement)	OUT	
59	CD.CSTOP	CSTOP Output of CD (System Movement)	OUT	
60	RELAY	ON/OFF Output of POWER Control	ON	OFF
61	∞DB	MUTE Output of ∞	OFF	ON
62	-20dB	MUTE Output of -20dB	OFF	ON
63	R MOTOR	Motor Output for Headphone	Rotate	
64	VDD	VDD +5V		

IC461 RC78M05FA / IC462 RC7812FA
(3-Terminal Voltage Regulated Power Supply)



TOOL FOR REPAIRABLE

Please use the tools(PCB relay cord) for repairable.



NO.	Parts code
1	614 231 2568
2	614 231 2544
3	614 231 2537
4	614 231 5220
5	614 231 2551

SANYO FISHER Vertriebs GmbH

Stahlgruberring 4 Tel: 089/420 45-0
8000 München 82 Tlx: 524033

Technisches Labor/ Durchwahl -122/121
Qualitätskontrolle

Service-Zentrale

Color TV -166
Hi-Fi/Audio -168
Video -172
Autoradio -170
Ersatzteillager -155/156/160/164
Techn. Schulung -174

Unser FISHER-Team steht Ihnen jederzeit gerne zur Verfügung. Ersatzteilbestellungen wickeln Sie bitte ausschließlich mit unserer Service-Zentrale München ab.

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Bitte geben Sie unbedingt die Ersatzteil-Nummer und die Modellbezeichnung an.
Sie sparen so wertvolle Zeit. Vielen Dank.